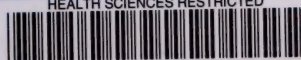


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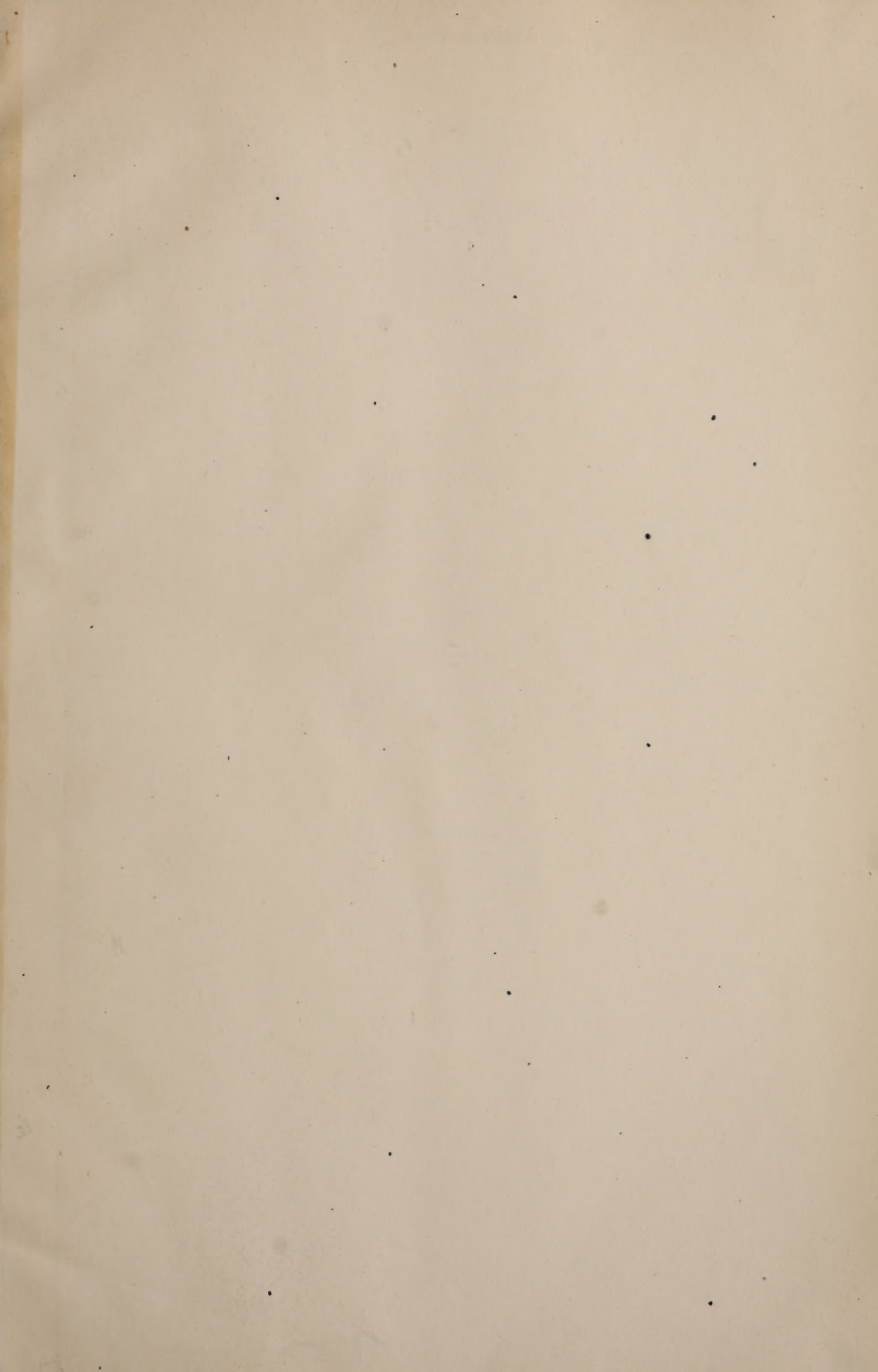


















# LONG ISLAND MEDICAL JOURNAL

EDITED BY

PAUL M. PILCHER, A.M., M.D.,  
OF BROOKLYN-NEW YORK

CONSULTING SURGEON TO THE EASTERN LONG ISLAND HOSPITAL, GREENPORT, L. I.;  
FORMERLY SURGEON TO THE GERMAN, SENEY, AND SAMARITAN HOSPITALS;  
ASSOCIATE SURGEON TO ST. JOHN'S HOSPITAL.

ASSISTED BY

JAMES M. WINFIELD, M.D.

DERMATOLOGIST TO KINGS COUNTY, JEWISH, LONG ISLAND STATE, NASSAU AND  
ST. MARY'S (JAMAICA) HOSPITALS.



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# LONG ISLAND MEDICAL JOURNAL

VOL. IV

JANUARY, 1910

No. 1

## PROGRESS OF MEDICINE FOR 1909

By HENRY G. WEBSTER, M.D.

WHILE the results of research and observation on internal diseases have presented little that is spectacular during the year just past, much of practical importance has been recorded and at least one striking discovery has been announced. Working with material obtained from the recent epidemic of anterior poliomyelitis in Brooklyn, Flexner announces that he has at last succeeded in transmitting the disease through successive generations of monkeys, thus demonstrating its infectious nature and opening the way for a determination of the specific agent. Kerr reports his observations of the same outbreak of 53 cases (see this publication for November, 1909) and in a later communication, from a study of the distribution of the cases endeavors to trace the probable contagion. The Rockefeller Institute has announced its willingness to co-operate with the physicians of this vicinity in the study of cases of anterior poliomyelitis and it is particularly desirable that its exceptional facilities should be utilized promptly whenever possible.

*Pellagra* has occupied much of the public as well as medical attention during the past few months, having been made the subject of a special convention, November 3 and 4 at Columbia, S. C. A full resumé of the conference may be found in the *Journal of the American Medical Association* for November 13, 1909. The disease has acquired such extensive proportions in the United States that a careful reading of the transactions of the conference will be time well spent.

*Tuberculin Test.* Observations on the reaction to tuberculin as evidence of the presence of tubercular disease are reported from a variety of sources. The enthusiastic approval of the Calmette oculotoxic reaction noticeable in the earlier reports shows a decided moderation as further experience has demonstrated the serious results that may follow its use in eyes that are not thoroughly sound, while a correspondingly increased emphasis is placed on the method of cutaneous application advocated by von Pirquet. The Moro method of cutaneous inunction of tuberculin in ointment form, also has its advocates. While some writers advance enthusiastic claims for the diagnostic value of the tuberculin reaction, the more conservative point out its limitations and warn against placing too great dependence on it as an unsupported diagnostic sign, urging that its presence in doubtful cases is confirmatory, but that it may fail even when a tubercular focus is present. It should, however, always be tried when doubt exists. Sato (*Beit. zur Klin. der Tuberkulose*, XIV., No. 1) has reported favorably on the diagnostic value of "old" tuberculin given internally in capsules. His figures include too small a number of cases to be more than suggestive.

*Tuberculosis; Treatment.*—Beverly Robinson (*N. Y. Med. Record*, Nov. 20, 1909) urges the value of creosote as a therapeutic agent in pulmonary tuberculosis. He uses it by inhalation as well as by mouth, as a prophylactic as well as a curative measure. He advocates the usual hygienic treatment,



but insists that creosote should supplement such efforts and asserts that unexpectedly good results will follow its intelligent use, even in advanced cases.

Peters (*Jour. New Mex. Med. Soc.*, Nov. 1909) reports the result of treatment by mercurial injections in seven cases of pulmonary tuberculosis. His results were no better than might be obtained by the usual forms of treatment.

*Syphilis.*—The Wasserman reaction is the subject of attention on the part of many investigators. Efforts to simplify its technic have resulted in the announcement by Noguchi of a modification that has been warmly received. He has succeeded in saturating test paper with an antigenic substance that does not deteriorate even when preserved for long periods. By the use of Noguchi's method the extremely complicated and tedious method of Wasserman is reduced to a comparatively brief and simple technic that may be readily acquired after a little practice. Comparative studies show fully as accurate results with this method as with the original. Reports from a large number of writers continue to verify the value of the serum diagnosis of syphilis, which may now be considered as a firmly established diagnostic measure. Bauer, Hecht, Stern, Detre and others also offer modifications of the Wasserman method, none of which, however, can claim the simplicity, ease and directness of Noguchi's.

*Nephritis.*—The attention of a number of observers has been directed during the past year to the question of the dietetic treatment of nephritis, especially with reference to the salt free diet advocated by Widal and Javal some six years ago. It will be recalled that these writers claim that sodium chloride acts as an irritant in increasing albuminuria and insist that in treatment this salt should be reduced to the least possible quantity. Several writers, including Vaughan and Musser (*J. A. M. A.*, Nov. 27, 1909) consider this question from the

clinical standpoint in particular, and while admitting the validity of the hypothesis, modify it in practice, using as a guide in the administration of chlorides the variations in the daily output of the salt. Their papers will repay perusal.

Orthostatic albuminuria is mentioned by at least two writers in recent periodicals. It occurs particularly in anemic growing children with spinal curvature (lordosis) and disappears after rest in the recumbent posture. It is worthy of attention from the possibility of being confused with the albuminuria of nephritis. Ebstein (*Berliner klin. Wochensch.*, Oct. 11, 1909) calls attention to the association of albuminuria and urinary cases with protracted constipation and instances cases in which the casts and albumin have promptly disappeared after the constipation had been overcome. Macaroff advocates cantharides in the treatment of nephritis. Doses of from 1 to 5 minims daily are said to be well borne in cases where the kidney is permeable, when the drug acts as a superior diuretic. The treatment is heroic, to say the least.

*Heart.*—Butler (*Arch. of Diag.*, Oct., 1909) writing on angina pectoris offers a new physical sign as differentiating the true from the false angina. This is "a slight clicking sound, of a harsh, or rough quality, accompanying or following by a barely perceptible interval, the sound of aortic closure." This must not be confused with the ordinary accentuation of the second aortic sound common in high tension.

Pottenger calls attention to the sense of resistance elicited by gentle pressure over the heart, liver and inflammatory processes in the lungs and pleura as a surprisingly accurate means of mapping out the boundaries of these organs or foci of inflammation. He believes this diagnostic sign is due to a skin reflex produced by contraction of the erectors pilorum.

Ward emphasizes the value of nitroglycerine in pulmonary edema due to myocardial degeneration. He declares that doses of 1/20 to 1/10 grain



every minute for 20 to 30 doses will produce "brilliant results."

Stone (*Med. Record*, Oct. 23, 1909) speaks of the excellent results of strophanthin given intravenously. In using the drug he makes sure that any digitalis previously given has been eliminated and warns against its use in any but appropriate cases.

*Lungs.*—Gentili (*Riforma Medica*, Oct. 25, 1909) reports a case of latent pneumonia. Chill, intercostal pain, headache and high fever were the only signs for some days. Finally expectoration occurred and the pneumococcus was demonstrated.

Vaccine treatment has been tried by Leary (*Boston Med. & Surg. Jour.*, Nov. 11, 1909) in a series of 83 cases of lobar pneumonia with 8 deaths. Delirium and toxemia were rapidly relieved and in one series of 49 crisis occurred in 3 days. Willcox and Morgan (*British Med. Jour.*, Oct. 9, 1909) report their observations on cases of pneumonia treated with vaccines. They record an earlier crisis in 6 cases and a rapid lysis in others. The beneficial effects in protracted cases where other measures had failed were striking. Carmalt-Jones writing in the same journal records his experiments with vaccine therapy in chronic asthma. He found, on the whole, sufficient improvement to warrant further efforts in the same line of treatment. Campbell (*Practitioner*, Oct., 1909) claims especial advantages for autogenous vaccines in the prevention and relief of common colds.

*Gastrointestinal Diseases.*—Brown (*J. A. M. A.*, Nov. 6, 1909) writes concerning the diagnosis of cancer of the stomach from bacterial examination of the stools. He quotes Rudolf Schmidt who divides the flora of the feces into Gram-positive and Gram-negative, the former group including the Boas-Oppler bacilli, the latter the ordinary colon varieties. Checking his results by cases that were

confirmed by operation or autopsy Brown declares that the Gram-positive stool is diagnostic of gastric cancer and that the bacilli appear in the feces early in the disease.

Pick (*Mediz. Klin.*, Oct. 3, 1909) summarizing the neuroses of the digestive apparatus praises the action of menthol in promptly allaying pain, vomiting anorexia and flatulence. He advises combination with an alkali. Goodman (*N. Y. Med Jour.*, Nov. 6, 1909) records his favorable experience with dilute solutions of hydrogen peroxide in the relief of hyperchlorhydria. He advises the free use of a .5% solution.

*Diabetes.*—The recognition of this as a disease due to interference with the proper function of the pancreas has led to a more rational study of the varieties of glycosuria. It is believed by some observers that, in addition to the grave forms associated with advanced destruction of the glandular elements, there are varying degrees of functional insufficiency dependent on biliary and intestinal disturbances that should prove amendable to the correction of errors in nutritive metabolism. The use of a variety of pancreatic extracts has already been reported with varying success. Supplementary treatment with various bacterial suspensions and yeasts has been mentioned in the literature and has been both praised and condemned. However, a considerable number of reports, still incomplete, on the combined use of pancreatic ferments with selected yeast recently submitted to the writer are so encouraging as to warrant the hope that a real advance in the treatment of the glycosurias has been made.

Opinion still continues divided as to the value of the Cammidge reaction as an indication of pancreatic disease. A majority seem to favor it as a valuable diagnostic aid while some few observers go as far as to condemn it utterly. The general opinion seems to regard its presence as of real diagnostic import.

## PROGRESS OF SURGERY

### AN ABSTRACT AND REVIEW OF RECENT LITERATURE

By WALTER A. SHERWOOD, M.D.

#### **S**UBTEMPORAL Decompression in Chronic Nephritis with Uræmia.

—Cushing and Bordley report the case of a woman, aged 22, who had the usual symptoms of chronic nephritis with high blood pressure and intense albuminuric retinitis. In spite of careful medical treatment, symptoms of uræmia developed. Lumbar puncture was of no benefit even though the spinal fluid was always under great pressure. A decompression operation was suggested by Cushing and a right subtemporal decompressive craniotomy was performed. The arachnoid was distended with fluid to a marked degree and this was relieved by pricking the membrane in several places. The whole brain was soggy and wet. The wound was closed without drainage. Following operation the headache subsided, there was no further nausea or vomiting and the stupor disappeared. There was a progressive improvement in the eye conditions as shown by the ophthalmoscope. The patient was discharged from the hospital at the end of six weeks in a much improved condition, but was again brought to the hospital at the end of two weeks in a condition of stupor and died within a few days. The autopsy showed chronic diffuse nephritis, cardiac hypertrophy, arteriosclerosis and chronic endocarditis.

The brain was edematous and in the right hemisphere a large clot was found lying lateral to and above the basal nuclei.

The conclusions drawn from this case are as follows: In view of the marked improvement after the decompression operation, the case tends to confirm Traubé's hypothesis that the cerebral symptoms in uræmia are due mostly to pressure from edema and also that an albuminuric neuroretinitis is in large part a local edema of mechanical origin. The case reported suggests the possible advantage of

permanent decompression in selected cases when medical treatment and lumbar puncture have been of no avail and when blindness threatens owing to retinal changes.—(*American Journal Medical Science*, Vol. 136).

#### *Transplantation of Thyroid Gland.*

—Theodor Kocher (Berne) states that thyroid transplantation is indicated in cachexia strumipriva and cretinism. The operation is done in two stages and the transplantation is made into the bone marrow of the tibia. In the first stage the marrow cavity is opened, a pocket formed and a silver ball (1.5 Cm. in diameter) is introduced. The wound is closed and reopened after two or three days; the ball is removed and fresh gland tissue is introduced. In this way hemorrhage is avoided, a layer of granulation tissue having formed around the ball.

The difficulty encountered is in obtaining fresh gland tissue and the second stage of the operation is planned for, at a time when some patient is to be operated on for a thyroid lesion from which normal gland tissue may be obtained, never from hypertrophied glands.

Experiment has shown that gland tissue thus transplanted in dogs was efficient in the maintenance of life. The animal died promptly when the bone containing the transplanted tissue was resected.

Kocher states positively that some of his cases have been benefited, though most of them are too recent for the formation of valuable conclusions.—(*Archiv. für Klinische Chirurgie*, 1908, Band 87, Heft 1).

*The Occurrence and Treatment of Tetany Parathyreopriva.*—F. Von Eiselsberg reports 500 thyroidectomies from April, 1901, to June, 1908. In fifteen cases the patient exhibited Chvostek's facial phenomenon after operation (early characteristic sign of tetany), but this disappeared within a few days.



In ten cases a well marked tetany developed and one of these patients died. It was observed that in all of these cases the operation had been an extensive one, both lobes being attacked. In order to avoid this condition the operative treatment should be designed to carefully avoid injury to the glandules and in case the parathyroid should be removed by accident it should be transplanted immediately. Should tetany develop in spite of every precaution to prevent injury, the administration of thyreoiden is indicated, the only other measure being the transplantation of a human parathyroid into a peritoneal pocket.—(*Centralblatt für Chirurgie*, No. 29, 1909).

*Inflammatory Stricture of the Pylorus.*—Villard (Lyons) has encountered in the last four years seven cases of a tuberculous affection of the pylorus, in one instance assuming the form of hypertrophy of the tissues, infiltration in two instances, and sclerosis in the others. He suggests that these different tissue changes may represent various phases of a single pathological process. It is possible that infections other than those of tuberculous origin may be the cause of an inflammatory stricture, but this has not yet been demonstrated.

Gastro-enterostomy is the only treatment indicated and that this operation meets all the indications is shown by the prompt recovery of all cases as soon as the course of the stomach contents was diverted. In one case a large inflammatory tumor simulated malignant disease and a gastro-enterostomy done for merely palliative measures resulted in a complete disappearance of the tumor.—(*Lyons Chirurgial*, Oct. 11, No. 5).

*Intra-Abdominal use of Oxygen.*—Bainbridge (N. Y.) after considerable experience in the intra-abdominal administration of oxygen draws the following tentative conclusions:

1. Oxygen intra-abdominally administered has a distinct field of usefulness in lessening shock, hemorrhage, nausea and vomiting; in overcoming negative intra-abdominal pres-

sure after the removal of large tumors; in preventing adhesions and in influencing favorably certain types of tuberculous peritonitis.

2. In three cases of septic peritonitis sufficient beneficial effect was noted to warrant the hope that further experience may establish the efficacy of the gas as an adjuvant in the treatment of this condition.—(*Annals of Surgery*, March, 1909).

*Fulminating Appendicitis.*—H. B. Butler (England) believes that cases of fulminating appendicitis are due to a volvulus of the appendix, which is thereby strangulated. Gangrene rapidly occurs and there is no time for the formation of adhesions and walling off of an abscess. General septic peritonitis follows very rapidly if the patient is not operated on within a few hours of the onset. Volvulus of the appendix may occur in any case where the organ lies free in the abdomen, but not when it lies in the retrocaecal fossa.—(*British Medical Journal*, October 30, 1909).

*Isolated Tuberculous Tumor of the Ascending Colon.*—H. Kuettner (Breslau) points out that although the favorite site of this tumor is in the ileo-caecal region, it is not infrequently found in the ascending colon. The important feature of these tumors is the fact that their symptoms and physical signs are not easily distinguished from carcinoma. Kuettner reports five cases which he has observed in the last two years. In all of these together with all others reported in the literature a diagnosis of carcinoma had been made. If the comparative frequency of the condition is borne in mind it is believed that the condition will be more accurately diagnosed in tumors of the ascending colon.—(*Deutsche Zeitschrift für Chirurgie*, Vol. 100).

*Kidney Operations.*—Hartman (France) performed nephropexy in 31 patients, but found that some of these patients continued to have the same symptoms as before operation. He concluded that the symptoms were either of neurotic origin or simply one element in multiple ptoses. Favorable

results were obtained in a series of 57 cases of tuberculosis of the kidney, for which a nephrectomy was done. Tuberculous epididymitis developed in two of the 15 men subjected to nephrectomy. One case died in less than three months of tuberculous meningitis and in several, already existing pulmonary lesions continued to progress. In several of the 42 females an existing pregnancy continued without disturbance. Only four out of 11 patients with renal calculi and pyonephrosis recovered completely after nephrotomy. A fistula persisted in the other cases, which required a later nephrectomy. In 15 nephrectomies for cancer the operative mortality was 13.3 per cent. None of the patients passed four years without recurrence.—(*Annales de Gynecologie et d'obstetrique*, Paris).

*Conservative Treatment of Severe Injuries of Fingers and Limbs with Impending Gangrene.*—Noesske (Leipsic) attributes gangrene following severe traumatism not only to a lack of fresh arterial blood supply, but also and more especially to an insufficient venous return. The arterial blood stream is unable to overcome the resistance of the venous congestion in cases of severe injury and freezing.

The veins are partly collapsed, thrombosed or the lumina are clogged by a sticking together of the walls of the vein. If possible to rapidly overcome these conditions the parts are kept from gangrene. Noesske has accomplished this by means of a deep incision down to the bone, then tamponing the wound with gauze soaked in oil to prevent its sticking together and then covering the part with a suction bell, which is connected with a hydrant to maintain the vacuum with negative pressure of 12 to 15 cm. of mercury. This aspiration is repeated two or three times each day for about a week. Each aspiration occupies eight or ten minutes. The incision, however, is of greater importance and should be as deep as possible. Noesske has applied this treatment with complete success in severe cases of freezing of both thumbs and in Raymond's

disease with beginning gangrene. His experience, although limited to fingers, would suggest the advisability of similar treatment in severe traumatism with impending gangrene of the arms and legs.—(*Zentralblatt für Chirurgie*, Leipsic, Oct. 2-XXXVI., No. 40).

*Intravenous Local Anesthesia.*—Hitzrot (New York) reports three cases operated on by Biers' method of local intravenous anesthesia.

The method is applicable only to the extremities and in the cases reported the operations were practically painless, and included an amputation of the leg. Novocain is the ideal anesthetic for this method, being much safer than cocaine. The writer commends this method which, in his opinion, is superior to infiltration anesthesia. Bier reported and described his method in 1908 (*Archiv. f. Klin. Chir. Bd. LXXXVI.*, p. 1007), which he had found especially useful in joint resections, tendon transplantations, sequestrotomy and amputation.—(*Annals of Surgery*, October, 1909).

*Treatment of Tetanus.*—Hessert (Chicago) in a review of the modern methods in the treatment of tetanus draws the following conclusions:

1. Prophylactic injection of antitetanic serum in cases with suspicious wounds is without question of great value in preventing the development of tetanus.

2. After the onset, local measures in addition to other means, should include the use of balsam of Peru, a remedy which has a definite antagonistic action to tetanus toxins.

3. Subcutaneous injections of antitetanic serum in massive doses will yield the best results; none of the many special methods of injection having proven of value.

4. Spinal injections of magnesium sulphate solution, by eliminating spasm, will tide many patients on to recovery who would die under the serum treatment alone.

The writer states that this form of treatment is destined to lower the mortality more appreciably than



anything heretofore advised, including the discovery of the serum.—(*Surgery, Gynecology and Obstetrics*, August, 1909).

*Further Observations on the Bismuth Paste Treatment of Tuberculous Sinuses.*—Redlon and Blanchard have made a study of 126 cases of tuberculous sinuses treated with bismuth paste. Their best results were obtained in old sinuses of joint disease.

They point out that bismuth paste should never be used when a progressive destruction is going on or where a sequestrum is found.

Its continued use is dangerous when large sacs are distended with residual bismuth. The paste should not be employed in sinuses of only two or three months duration. The treatment was injurious where the sinuses were surrounded by diseased skin or when the skin was extensively undermined. The paste should always be used cautiously and symptoms of poisoning watched for.

Skiagrams show that in cured cases the bismuth may remain unabsorbed for many months or even years. Believing that bismuth is not the essential ingredient of the paste, the writers have employed with good results a mixture containing one part of white wax and eight parts of vaseline (mixed while boil-

ing).—(*Amer. Journal of Orthopedic Surgery*, Vol. VII., No. 1).

*External Roentgen Treatment of Internal Structures.*—Carl Beck reports seven cases of intra-abdominal malignant growths, too far advanced for surgical removal, which he attached to the abdominal wall for the purpose of making them more accessible to the X-Ray. They were then subjected to Roentgen treatment and in three cases the primary results have been most encouraging. The time elapsed since operation is not definitely stated and the method is suggested only as a possible hope for otherwise incurable cases.

Four of the cases died, one as early as the fifth day after operation.—(*N. Y. Med. Journal*, March 27, 1909).

*Treatment of Gonorrhœal Arthritis with Vaccines made from the Gonococcus.*—Hartwell (Boston) in a review of 57 cases of gonorrhœal arthritis treated with gonococcus vaccines in the Massachusetts General Hospital, concludes that the vaccines constitute a valuable therapeutic agent in gonorrhœal arthritis in all stages of the inflammation except where ankylosis has occurred. They do not prevent extension to fresh joints in early cases, and do not produce a lasting immunity. Autogenous vaccines seem to be of more value in their efficiency than stock vaccines.—(*Annals of Surgery*, November, 1909).

## PROGRESS IN DERMATOLOGY AND SYPHILOLOGY

By JAMES M. WINFIELD, M.D.

**D**URING the past year there have been so many new discoveries made, and theories advanced in the treatment of skin diseases, that in preparing a review for a general medical journal one is at a loss to know what is really worthy of report.

A subject that has always been relegated to dermatology and a disease that was supposed to be unknown in America has attracted a great deal of attention during the past year—pellagra. Reports of the occurrence of this

disease in twenty-two States of the Union has taken up considerable space in our medical journals.

It is probable that for some time hence many cases will be reported as pellagra which upon close examination will be found to be some other dermatosis. The discovery of this disease in America, and the clear description of its symptoms was made by two asylum physicians in Columbus, South Carolina, and it is a significant and encouraging fact that the

American physician, even when not in active practice, is ready and alert to investigate any unusual symptoms. We owe to the naval surgeon the great advances in the etiology and treatment of yellow fever, and now the asylum physician has demonstrated the presence of pellagra in the United States, and through his subsequent investigations it will probably be possible to clear up the etiology of this strange and interesting disease.

There seems to be no doubt that there have been cases of pellagra in the United States before 1907, for, if spoiled Indian corn is responsible for the disease there must have been cases of pellagra among those persons who habitually eat corn meal. Space will not allow a very extended report of the literature on this subject, but as the diagnosis must be so often made from cutaneous symptoms alone, a brief resumé will be given of the dermalolepal findings by American observers. Up to 1907, pellagra was considered a disease common only to Italy, Egypt and Southern Switzerland, and its occurrence in America was considered improbable if not impossible, until Babcock's (of the South Carolina State Hospital, Columbus) cases were reported. Three sporadic cases had been reported from America, two of which were studied and reported by our fellow-member, Dr. Samuel Sherwell, the first in 1885, the second in 1892. These were both Italian sailors, patients in Long Island College Hospital, Brooklyn, and of course were not American cases.

Wood, in the July (24) number of the *Journal of the American Medical Association*, contributes a valuable paper on the subject, according to his observation: "The erythema (dermatologically speaking this is not an erythema, but a dermatitis) almost invariably makes its appearance in the spring." According to his observations, "the greatest number developed in April and May, the uncovered portions of the body, as the hands, face and neck are more apt to be affected, and in all cases are first affected."

Most authorities regard the effects of the sun in some way responsible for the dermatitis; Wood, however, is disposed to reject this idea, because "the disease of the skin appears so early in the spring that the sun's rays are of little consequence." The insolation theory is further strengthened by the fact that those people who have lesions on their feet, were those who often went without shoes, and the Egyptian cases invariably have the dermatitis over the sternum, which is uncovered by their manner of dress. The backs of the hands are the first site of the lesion, according to the Southern observers: "The lesion in this position is very distinctive and usually furnishes sufficient evidence for a positive diagnosis."

"The first dermatitis often simulates sunburn, the line of demarkation between the normal and diseased skin is absolutely symmetrical in position and direction, the points of greatest intensity are over the knuckles and the tips of the styloid processes. The lesion begins at the ends of the fingers and extends upwards to the middle and lower third of the forearm," generally there is simply a diffused redness without swelling, although in some cases the swelling of the skin has preceded the erythema. The dermatitis resolves by exfoliation, this is what has been termed the dry type of pellagra, in the moist or wet variety blebs occur which soon become covered with crusts, simulating, in some respects, the bullous type of erythema multiforme.

The appearance of the skin after healing is variable, usually between the attacks it is soft and velvety like an infant's skin, but there is always more or less pigmentation, the discoloration deepening with each recurrence the pigmentation varies from a slight yellow to a deep brown or chocolate, in negroes the affected part looks as if it were covered with soot. The palmer surfaces of the hand are not often involved, although in some of the American cases blebs were found in this position.

After the hands, the face is the most



apt to be first affected, the same symmetry is maintained here, the first dermatitis appears in two small spots at the outer canthi of the eyes, or the angle of the mouth, sometimes the lesions assumes the butterfly shape of lupus erythematosus, when the dermatitis attacks the neck, the lesion usually appears at the back and extends laterally until a complete collar is formed, and in most of the Egyptian cases this extends in a triangular shape down over the sternum.

If the feet are involved, the point of selection is over the instep with the same symmetry as of the hands.

The prodromal symptoms are indefinite; there may be anorexia or voracious appetite, pain and sensation of distension in the epigastric region, constipation or diarrhoea, insatiable thirst or a distaste for all liquid; later there are headaches, pain in the back, neck muscular weakness, dizziness and uncertainty of motion; these symptoms usually come on, at the beginning of the new year, and precede the dermatitis from four to eight weeks; the attacks of dermatitis may be repeated at intervals from one to eight months. Another prominent symptom is stomatitis and salivation, the tongue is red and denuded of epithelium, "bald tongue." Another unailing symptom is an obstinate and intractable diarrhoea. The pellagrous insanity which is one of the terminal manifestations of the disease is of the melancholia type.

The acute or fulminating variety of pellagra, called by Lombroso "typhoid" runs an acute course from three weeks to three months, the patients die with symptoms of profound, acute toxamia. Over fifty per cent. of the cases reported from the South are of this variety, the Italian observers say that this fulminating type is not primary, but that it is an exaggeration of a regular recurrence of a chronic form.

The sera-diagnosis of syphilis has made lasting and substantial advances during the past year. Ever since Wasserman's original contribution syphilographers and pathologists in various

parts of the world have been trying to find some simpler way to apply this test. During the past year a number of modifications have been reported, some of them have been rejected as useless, some are still under observation and others have been accepted as real modifications, having all the essentials of the original method. A review of the various modifications would not be profitable in this brief resumé, for a description of the simplest modification is confusing to any one not familiar with bacterial technique, consequently, it seems wiser to give the conclusions of some of the authorities.

In *The Journal of Cutaneous Diseases*, Aug., 1909, Dr. Howard Fox, compares the Wasserman and the Noguchi complement fixation tests. After reviewing the literature of the subject he concludes as follows:

"*First*.—Of the different methods of serum diagnosis of syphilis, depending upon the principle of complement-fixation, that of Noguchi seems most perfect from a theoretical standpoint.

"*Second*.—From the standpoint of simplicity in technique, the method of Noguchi stands without a rival.

"*Third*.—The result of the writer's comparative analysis of the Wasserman and Noguchi tests, shows in cases of syphilis, a larger proportion of positive reactions with the Noguchi than with the Wasserman test. It is only fair, however, to say that at present the two methods give fairly parallel results in the writer's hands.

"*Fourth*.—Whether the Noguchi test will prove as nearly specific for syphilis as the original Wasserman method, can only be ascertained after an examination, in the future, of a large number of cases."

According to Swift, (*Archives of Internal Medicine*, Chicago, Oct.), a large anti-sheep hemolytic content will mask a partial complement fixation. He considers the Noguchi reaction to be more readily applied, and is more sensitive than the Wasserman; this increased sensitiveness, however, sometimes causes a positive reaction

where the Wasserman gives a negative.

Another advantage of the Noguchi method is that it is possible to get enough blood from the patient for the test without resorting to venous puncture.

Tschernogubow, (*Berlin Clin. Wochenschrift*, Oct. 4th), claims that the Wasserman test will not take its proper place among diagnostic measures until the technique has been so modified that it can be adopted as a routine method by the general practitioner. He considers that his technique has made great progress in this direction; he uses an alcoholic extract of a pulverized healthy human liver and a five per cent. emulsion of sheep corpuscles, by his modification only 0.5% of the patient's blood is required, while the Wasserman calls for ten or twenty times this amount, he claims to have obtained parallel results with this and the Wasserman method.

Noguchi (*Archives of Diagnosis*, July) emphasises the fact that any method in which five different factors—amboceptor, complement, corpuscles, antigen and patient's serum—are not separable, titrable and adjustable is defective in principle and should not be recommended for diagnostic purposes. He considers that the butyric acid test yields better results than the Wasserman in cases of cerebro-spinal lues.

While much has been done during the year just past to simplify the technique of the sero-diagnostic test it is still evident that to make this diagnostic aid of any value one must have had considerable laboratory experience, and must have grown accustomed to reading the results from a large number of cases.

Although it may be ever so desirable it is not yet possible to use this test as a routine measure by the busy general practitioner.

After reading the mass of literature on the sero-diagnosis of syphilis, the conclusions one must arrive at is that it is a valuable discovery because it not only assists in making positive the diagnosis of syphilis, in doubtful cases,

but the frequent test examinations also serve as a guide to the specific medication.

Saathoff (*Much. Med. Wochenschrift*, Sept. 28th) states, that the greatest value of the Wasserman reaction in internal medicine is when the findings can be compared step by step with the clinical picture and post-mortem data. In his extensive experience he has never encountered a case of active syphilis with a negative reaction.

In aneurisim of the aorta the Wasserman reaction is of importance. He cites a case of aortic insufficiency where the reaction was negative, but a diagnosis of syphilitic origin had been made, autopsy, however, failed to disclose any evidences of syphilis, the aorta was absolutely smooth; he considers this test a useful guide in liver and kidney affections; he cites the instance of an apparently healthy, young woman who had suffered a daily headache with sub-febrile temperature for over a year, there was nothing to indicate either syphilis nor tuberculosis; Wasserman reaction was positive, this threw a light upon a certain liver affection in the husband several years before. Positive reaction was obtained in a case of supposed tuberculosis bone affection, further inquiry into the history of the case revealed the fact that the father had suffered from syphilis. This was undoubtedly a case of inherited syphilis.

Saathoff applies this test to all of the patients in his service, and is amazed at the frequency of positive reactions.

Donath (*Berlin Klin. Wochenschrift*, Nov. 8th) reports 85 per cent. positives in 27 cases of aortic insufficiency, mesa oritis or aneurism. In three of the cases there was a history of articular rheumatism, and the aortic affection had been regarded as the consequence of infectious articular rheumatism, the abuse of tobacco or alcohol.

The author brings out an interesting point that in some cases, where syphilis is strongly suspected, a negative reaction is often obtained until the pa-



tient is given a tentative brief course of mercury; this has been verified by a number of other observers. After a few innuncions or injections the Wasserman reaction becomes positive.

This observation is similar to what is observed in chronic malaria, where a few small doses of quinine may induce an active phase of the disease.

Collins and Sachs in the *American Journal of Med. Sciences*, September, claim that on account of the high percentage of positive Wasserman reactions in cases of cardiac and vascular diseases the treatment should be anti-syphilitic.

Grosser (*Medicinesche Klin. Berlin*, August 29) reviews the literature, and his experience with three hundred cases of the Wasserman reaction concludes that cero-diagnosis must not be rated too highly as a guide for treatment, but that positive findings are important in diagnosis, a persistent positive reaction during a vigorous specific treatment raises the question, whether the infection in these cases is peculiarly resistant to mercury. The reaction is tenaciously positive in hard drinkers, and it is a matter of common observation that the syphilitic manifestations are especially severe in inebriates and that treatment must be prolonged and vigorous.

The Wasserman reaction has done much to clear up the disputed etiology of general paralysis of the insane. Smith and Candler, in the *British Med. Journal*, July 24th, give the result of the examination of the cerebro-spinal fluid from 127 individuals, sixty-four were cases of general paralysis; fifty-nine of these gave a positive Wasserman reaction, and in seven of the cases the fluid was obtained post mortem, all of these gave positive results, the Wasserman reaction is not altered in fluids that are obtained post mortem, providing they are kept cold. This view has been substantiated by German observers; one recommends that the cerebro-spinal fluid be frozen. Smith and Candler also claim that a positive Wasserman reaction with the cerebro-spinal fluid is practically diagnostic in suspected cases of general paralysis, in only two other cases is it

ever obtained, namely in tabes and in syphilis of the meninges of the central nervous system.

There are not as many positive results in tabes as there are in general paralysis.

Bar and Daunay (*Obstetrique*, April, Paris) give the results of a Wasserman test in fifty-seven infants. Their findings show that when the mother is in the active stage of syphilis at parturition the infant is less frequently positive than when the maternal syphilis is merely suspected; the reaction is also apt to be negative when the mother has been thoroughly treated for syphilis. Negative findings in an infant of an actively syphilitic parturient mother does not prove that the child is free from syphilis.

A positive or partial reaction is also obtained with the cerebro-spinal fluid of infants suffering with syphilitic paralysis which had been untreated.

An interesting communication from the Hamburg Allgemeine Krankenhaus, Hamburg, is made to the *Münch Med. Wochenschrift*, 1908, by E. Franckel, on the cero-diagnosis of syphilis in the cadaver. The findings all confirmed the clinical diagnosis during life, although the investigator examining the serum was not acquainted with the case history at the time. Serum from scarlet fever cadavers also gave a positive reaction.

The various observations of syphilographers in all parts of the world leads to the conclusion that a positive reaction during an active course of specific treatment indicates that the disease is still present; and a negative reaction in a case previously positive means that the disease is in abeyance; if the reactions are positive for a varying length of time after the anti-syphilitic remedies have been discontinued, the assumption is that the disease is either rendered inactive or cured.

In the July 29th number of the *Ugeskrift for Læger*, Copenhagen, Ehlers reports the result of the Danish-French leprosy expedition.

The special aim of the expedition was to determine whether insects were involved in the transmission of lep-

rosy. Their findings all indicate that this is not the case. Blood sucking insects, he says, merely suck blood; they do not introduce poison like bees. The experiments were made on fifty lepers in the Danish West Indies.

The Wasserman test was positive in all the patients with nodular leprosy, and in the anesthetic forms, the stationary and cured cases the reaction was practically negative. No signs of leprosy was found in a hundred and sixty rats examined, the only suggestive finding was that of the *filaria sanguinis hominis* in the stomach of body lice.

W. H. Billings, in the *Buffalo Medical Journal*, September, claims that in eighty per cent. of flatfoot cases, the skin covering the ankle and foot will present one or more conditions which seem to be closely related to, always benefited, and often cured by correction of flatfoot deformity. The most

common skin lesion associated with flatfoot deformity is callous; patients with flat feet always suffer from excessive sweating of the feet, eczema between the toes is often seen and soft corn between the fourth and fifth toes is almost always associated with transverse arch relaxation; verucose ulcers, located back and above the internal maleolus sometimes complicates flat foot.

All of these conditions are cured when the deformed arch is lifted.

Reines, in the *Weiner Klin. Wochenschrift*, August 12, reports thirteen cases of scleroderma, which goes a long way towards confirming the connection between scleroderma and tuberculous infection. The tuberculin tests were positive in all cases of scleroderma, and inoculations of animals with the diseased secretions gave positive results.

## PROGRESS IN OPHTHALMOLOGY

By JAMES COLE HANCOCK, M.D.

**D**URING the past year there has been probably more than the usual progress in Ophthalmology. The *Tuberculin (Calmette) Ophthalmo-Reaction* is still under discussion and the year's experience has led to the belief that it is of undoubted value but not unattended, however, with its inconveniences and dangers. It can hardly be said to have reached the stage where it is regarded as absolutely conclusive. One case has recently come to our notice in which a tuberculous process was set up in a perfectly healthy eye as a result of the instillation of tuberculin, and it is attended in some cases with an extremely violent conjunctivitis and in others with a severe mucopurulent condition. It is stated by Ernest Thompson that constitutional reaction has been reported by several observers similar to the symptoms produced after subcutaneous injections. Napier reported two cases where tuberculin was administered subcutaneously after the use of the Calmette test, and in

each case a severe conjunctivitis came on some weeks later in the eyes to which the test had been applied. The local reaction on diseased eyes is generally considered to be dangerous and many cases have been reported as being damaged.

Walter Hamburger reports 48 cases of the *ocular typhoid reaction*. This reaction is produced by the instillation into the eyes of typhoid patients of one drop of an extract of the typhoid germs. A reaction is produced which is probably characteristic. Progress is being made in the ophthalmic serodiagnosis of syphilis. The last word has been by no means said in this connection, although the signs are hopeful ones.

Among the most important results of experiments during the year is the method of resection of corneal scars, originated, advocated, and practiced by Doctor Wiener, of St. Louis, and described in a paper presented at the last annual meeting of the American Medical Association. The Doctor de-



scribed his method of operation and, while it was impossible for him to present a human patient, he did present a rabbit which had been operated upon according to his ideas after a scar had been produced by means of an ulcer of the cornea. The result in the case of the rabbit was a most striking and gratifying success, the seat of the corneal scar, and subsequent operation being practically invisible.

Attention has again been drawn to the possibility of absorbing cataracts or tending to limit the rapidity of their formation by giving iodide of potash. In one report 239 cases are mentioned, in a large number of which there was improvement of vision. This internal administration of iodide of potash has led Badal and others to try solutions locally. Solutions of increasing strength are used as eye drops. Subconjunctival injections are also sometimes used. With regard to the operation for the extraction of mature senile cataract, considerable attention has been given to the extraction of the lens in its capsules during recent months. This method of course is by all means the one approaching most nearly the ideal. With its successful employment the percentage of good vision as a result of cataract operations is very much higher. There can be no remaining secondary cataract. The two most important objections to the method lie in the facts that the operation must be the operation of experts, and that it is usually attended with considerably more reaction than when other methods are used.

While it is very generally admitted that *Trachoma* has been successfully attacked and that this dreaded eye disease is not now increasing, we must not forget that it is still in existence and occupying a prominent place among eye diseases. Solenkowsky reports a series of cases of trachoma successfully treated with radium bromide exposures. Hamburger urges massage of the granules with wool cotton, wrapped in organtine, and dipped in sublimate solution of a strength of 1-1600, and later 1-1800. It is interesting to note here the re-

duced strength of solution used, 1-500 having been so generally advocated in the past. We still believe that rupture of the capsules and squeezing out the trachomatous material followed by local antiseptic treatment is the best method to employ in this malady. Advance has been made along the line of the etiology of trachoma. Halberstadter and others have found in the smears from the conjunctival secretion of trachoma patients small coccus-like bodies within the epithelial cells, usually characteristically massed together near the nucleus. The opinion expressed is that they are parasites. Many observers whose opinions seem to be well worthy of attention, claim that we have still discovered no authentic cause. It would seem that jequirity is used from time to time for the relief of pannus. Cases of pannus in which gonorrheal pus is still used are also reported.

Louis Stricker during the year reported two cases of blindness from inhaling wood alcohol. Wood and Buller have reported 153 cases of blindness and 122 cases of death from drinking wood alcohol. A case of blindness following the use of protargol in a case of phlegmon of the lachrymal sac which had ruptured on the face is reported. The blindness was caused by pressure upon the optic nerve during the course of an orbital cellulitis. It is presumed that the cellulitis was induced by some of the protargol escaping into the orbital tissues. A number of new cases of permanent staining of the conjunctiva from the continued use of argyrol have been reported.

The controversy still goes on as to which is the proper method to employ in the treatment of *glaucoma*, operation or the use of myotics. We believe, as always, in immediate operation unless the vision is already so far reduced that no practical result may follow the operation. We call attention to the fact that in most tables of statistics submitted in support of the myotic method are to be found a large number of the cases that were operated upon very late. It is claimed by

many that iridectomy in simple glaucoma is, as a rule, a failure. While we believe that a good, broad iridectomy should be performed to free the iris angle, we do not think that we in the least weaken our position by stating that a myotic may be used for some time after to prevent a possible recurrence of the condition relieved by operation.

Spratt reports the case of a piece of

steel removed from the vitreous without loss of normal vision, and Dickey, the case of an eye enucleated for irritation in which a piece of steel was found which entered the eye seventeen years earlier. Much progress has been made in localizing foreign bodies and transillumination has assisted us greatly in making out growths, etc. The operation of decompression is steadily gaining a foothold.

## PROGRESS IN THE SCIENCES OF EAR, NOSE AND THROAT SURGERY

By WILLIAM C. BRAISLIN, M.D.

THE year 1909 has been a rather remarkable one in the number of new books appearing devoted to this special department of medicine and of old ones rewritten or appearing in new editions. In all of the latter, more or less extensive changes and additions are noticeable. These corrections and additions, indeed, were imperative, commensurate with advances which seem important and promising. First in importance, perhaps, may be regarded the recently much greater degree of attention given to cerebral and general complications of otitic and nasal origin. Dating from the appearance of Macewen's book on diseases of the brain and spinal cord in 1893, evidence has been accumulating that a much greater number of the inflammations of the meninges, than was formerly supposed, arise from infections taking place by way of the ear and nose. The tests for the presence of inflammations of the vestibule of the inner ear are being more generally used, and many therapeutic measures recently proposed are being tried out. Especially noteworthy among these is the serum vaccination method now being used for suppurative conditions of the nose, ear and throat as well as elsewhere. The larger number of men annually directing their energies to these problems would seem to argue for a still further general advance of these sciences. Brain complications of otitic suppuration have been shown to arise

frequently from infections having taken place through the labyrinth. The necessity of determining the integrity or the involvement of the labyrinth in suppurative processes of the middle ear, acute or chronic, is a matter of extreme importance. In case infection of the labyrinth has already occurred, an operation which includes its proper drainage is necessary to prevent a spread of infection to the meninges. In cases in which meningitis is already present, a demonstration of labyrinthine inflammation is important as marking the pathway by which infection of the brain has occurred. Bárány's caloric reaction is based on the physiological relationship of the eye and the ear in as much as an irritation of the labyrinth, causing a disturbance of equilibrium, occasions a reaction on the muscles of the eye; in other words, a vestibular nystagmus. Thus, a disturbance of the endolymph in any particular semicircular canal, gives rise to a nystagmus in which the eyes move in a plane parallel to the plane of the affected canal. The slow movement is in the direction in which the endolymph moves, while the quick eye movement, or the one prominently observed, is a movement in the direction opposite to that of the movement of the endolymph. Heat and cold effect a movement of the endolymph. Hence, irrigation of an ear with cold water produces sensation of vertigo and a rotary nystagmus *away from* the irrigated ear. Irrigations



with hot water cause nystagmus toward the irrigated ear. This, in brief, is the chief, though not the only, test of vestibular irritation. In applying hot and cold irrigation tests, the absence of normal caloric reactions indicates rather serious involvement of the labyrinth. We have already referred in a recent review of Ballinger's work to an excellent series of illustrations, by means of which he demonstrates, pictorially, the physiologic action of these tests. Kerrison is a study of the phenomena of vestibular irritation in acute suppuration of the labyrinth (*Trans. Am. L. R. & O. Soc.*, 1909) has also reviewed the various tests for determining the presence for labyrinthitis.

The attention of late given to the tonsils because of their being widely recognized portals of infection to various diseases occurring at points remote from them, has been instrumental in bringing forward many papers devoted to the consideration of their thorough removal, enucleation or extirpation. The snare, the knife, the operator's finger and many especially adapted instruments simulating these are being tried out. Most operators now believe that all diseased and hypertrophied tonsils should be removed completely, and if possible with the capsule intact. Along with this movement it may be noted that tonsil clamps and hemostats are likewise becoming more necessary parts of the surgeon's armamentarium. G. Hudson-Makuen in a paper in the *New York Medical Journal* (June 19, 1909) recommends a complete removal of the tonsil, but withholds special favor from any particular method of operating except to discourage the use of the snare which he thinks has the disadvantage of leaving a ragged wound and one slower to heal, while the operation itself is more painful. He finds the forceps of Geo. L. Richards particularly satisfactory. He also uses a knife with the blade slightly curved, and curved scissors. He regards general anaesthesia preferable in children. When complete co-operation of the patient can be obtained, it is better done under local anaesthesia.

In connection with removal of the tonsil, several recently invented or modified forceps-tenacula have been fitted with a check for preventing their complete closure in grasping the tonsil in order that they may not cut through the tissue and so tear their way out, when traction is exerted. H. P. Mosher gives a figure of one of these of a good design in *Boston Medical and Surgical Journal* (May 20, 1909).

Lee N. Hurd and Jonathan Wright's study of the tonsil in relation to tuberculosis is a most interesting contribution. Wright says: "Not all the crumbling areas I see in the tonsils [microscopically examined] are tuberculosis. Some, I believe, to be due to autolysis, with the transformation of protoplasm into fat or the substitution of fat for the destroyed protoplasm." This is a retrograde metamorphosis of the tonsil, but an entirely physiological one. Some of the tonsils examined by Dr. Wright, he reports as cases of chronic inflammation, but he states that if he saw these same masses of fibrous tissue in a section of lung he would call them healed tubercle. In a case of this type, enlarged cervical glands persisted after removal of the tonsil. The glands themselves were subsequently removed and examined, and, of these, one had become a purulent mass, and the rest had cheesy centers. In none of these, tubercles were found, though they were regarded as probably of tuberculous origin.

A novel study as to the presence in the blood of various bacteria in association with severe otitic inflammations has been made by Libman and Cellar (*Am. Jour. Med. Sciences*, Sept., 1909). In an examination of 277 such cases streptococci were present, with or without other organisms, in 189 cases. In all cases in which bacteria were found, there were complications of sinus thrombosis or meningitis. Cases in which streptococci are found in the blood after the mastoid disease has been thoroughly operated upon and no other cause can be found for their presence, are believed to be cases of sinus thrombosis. This statement is somewhat negated

by the fact that this test is not a positive one and is made immediately after the operation has been performed. In most cases the disappearance of bacteria from the blood is very prompt after ligation of the jugular vein.

It would be an omission in a review of ear and throat work of the past year to omit a reference to the work of Robert Levy, on vaccine lymph in the treatment of suppurative conditions of the ear and nose. Forty-eight cases of suppuration of the ear were treated, fifteen of the accessory sinuses of the nose, and fifty-eight tuberculous cases of the pharynx and larynx. The number of ear cases cured was nearly seventy-five per cent. Those of the nose cured, less than fifty per cent., though some not cured showed improvement. Two cases of pharyngeal tuberculosis are reported as cured, three of laryngeal cured, and sixteen improved. This method of therapy is still in doubt as regards its applicability to the individual case. The difficulties surrounding the administration of this treatment are very considerable and can only be utilized by those whose special training has fitted them for it. The reviewer is inclined to believe that this form of treatment in chronic suppurations of the ear and nose will fail to become established as a standard therapeutic measure. The reason for this belief is that the suppurating cavities having become immune to the particular organism or organisms for which the serum had been specially adapted to antagonize, would still lack resistance to the attacks of organisms of other species, of equal or still greater virulence, since these affected areas would still be accessible to dust and air-borne spores and organisms. The case would seem to be different in acute suppurative inflammatory disturbances where reparative activity is greater and necrosis of the bone absent.

Among the acute disorders of the throat, of more than ordinary interest are cases of Vincent's angina, which have been reported surprisingly few times in this country. Arrowsmith (*Laryngoscope*, May, 1909) has collected reports of others which have re-

cently appeared in literature and adds four cases of his own. The appearance of this condition varies, as several cases, figured, show. In the first case a large mass of exudate, resembling discolored milk curds, appeared in the tonsillar region. This exudate continued to re-form on removal, in spite of various topical applications. Finally after about six weeks of progress of the disease in spite of treatment, accompanied by an extensive ulceration and erosion, it began to improve.

At the end of three months while the ulcerating portion was entirely healed, an extensive loss of tissue was evident including a third of the epiglottis, the right tonsil, its posterior and most of the anterior pillar, the scar tissue extending upward into the pharynx and downward into the larynx. Very little abnormal temperature existed in any of these cases.

Otto T. Freer uses in the performance of his operation on the tonsil (*Jour. A. M. A.*, Feb. 13, 1909), besides a tongue depressor, twenty-four swab holders and gag, a sickle-shaped knife, with a sharp point, his own knife bent on the flat, a Casselberry forceps for seizing the tonsil, a Rhodes punch-forceps and two long double-tined tenacula for holding the pillars apart. Another author (F. C. Ard, *Med. Record*, Mar. 6, 1909) has collected a large number of cases of mortality from various causes, chiefly hemorrhage, following operations on adenoids and tonsils. In a case of his own, in a "bleeder," he obtained success from the use of lactate of calcium, "in considerable doses."

Francis P. Emerson writes a paper (*Bost. Med. and Surg. Jour.*, Apr. 23, 1908) on the physiological importance of Rosenmüller's fossa in diseases of the middle ear. He points out the influence of pathological condition in the recessus pharyngeus in cases of obstruction of Eustachian tube, catarrh of the middle ear, and also in cases of middle ear suppuration. He cures Rosenmüller's fossa either with an instrument or with his finger, endeavoring to remove all the bands of adhesion.



# LONG ISLAND MEDICAL JOURNAL

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EDITOR-IN-CHIEF

PAUL MONROE PILCHER, A.M., M.D.

ASSOCIATE EDITOR

JAMES MCFARLANE WINFIELD, M.D.

EDITORIAL OFFICE:

386 GRAND AVENUE, BROOKLYN, N. Y.

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JANUARY, 1910.

## PELLAGRA.

THE recent increase in the number of cases of pellagra in the United States has led to a closer study of its cause and treatment. The disease was first described by Casal in 1730, and throughout the eighteenth century its occurrence in Italy became so common that in 1784 a special hospital was established for the purpose of studying the disease. It spread throughout Europe, but has not been recognized here until recently. The first large series of cases reported in this country were observed by Dr. G. H. Searcy, of Alabama. The epidemic which he recorded occurred in 1907, in which eighty-eight persons were infected, of which number fifty-seven died. However, as early as 1863, a few sporadic cases were recognized in New York and Massachusetts. In 1902, Drs. S. Sherwell of Brooklyn, and H. F. Harris, of Georgia, each reported a case.

In order to appreciate the extent of the disease and its terrible results we have to turn to some of the statistics gathered in Europe. In 1903 it was estimated that in Italy alone there were between 60,000 and 100,000 cases. In 1898, Roumania, with a population of 5,300,000,

showed 21,272 cases of pellagra. The statistics of St. Clement's Hospital of Venice from 1874 to 1879 show a total number of insane patients cared for to be 4,404, of which 1,352 were the result of pellagra.

Lavinder in a recent exhaustive article on the subject states "that the cause of pellagra is essentially unknown. That the idea of the etiological relation between pellagra and the use of corn as a food is as old as the disease itself and should not be cast aside, yet it would seem unwise to hold such views so dogmatically as to exclude investigation along other suggestial lines."

Twczek believes that pellagra is due to certain toxic substances developed in the course of the decomposition of Indian corn. Others class it as a purely parasitic disease.

The disease is a complex one and according to Parker is characterized by three classes of symptoms. "First, a squamous erythema confined to those portions of the skin which are exposed to light and heat. Second, a chronic inflammatory condition of the digestive tract resulting generally in a persistent diarrhea. Third, a more or less severe lesion of the nervous system leading at times to a mental alienation and paralysis. The symptoms are at first insignificant but periodic, beginning in the early spring and diminishing with the approach of winter."

The prognosis is usually bad, the acute cases proving rapidly fatal, while the chronic cases sometimes go on for ten or fifteen years.

Treatment is very unsatisfactory, and the hope at the present time is that some curative serum may be produced to combat the disease.

## THE MEDICAL LIBRARY ASSOCIATION OF BROOKLYN.

THE yearly report of the Medical Library Association gives an interesting summary of its work for the year, showing a disposition of the funds intrusted to its care. To the reviewer of this report there seems to be an amazing lack of interest on the part of the general profession of Brooklyn and Long Island in the matter of upholding the Medical Library. In a recent conversation with an agent of one of our important medical book publishing houses, the writer was surprised to learn how many medical books were purchased by the general practitioner, but in looking over the accounts of our Library Association it is equally surprising to find what a small number of books and periodicals are donated by our colleagues to the Medical Library of Brooklyn. The present library of the Medical Society of the County of Kings is the fourth largest in this country. The source of our book income is very limited, and, in some instances, transitory. The books which have been deposited by the State Society, as well as periodicals received in exchange for the *Journal of the said Society*, may at any time be taken from us, although there is a tacit understanding that they are to remain in our care. The income from the various endowment

funds amounts to only \$400.00 a year. The private societies and sections of the County Society subscribe for certain periodicals which are of particular interest to their members. The Brooklyn Gynecological Society subscribes for 12; The Brooklyn Surgical Society subscribes for 6; The Brooklyn Pathological Society subscribes for 4, and so on.

The purpose of the Medical Library Association is primarily to stimulate interest in our library and to further its interest in every way. It is a mistake for us to consider that the library is purely a local affair. It belongs to all of Long Island and its interests should be considered by all of the members of the Associated Physicians of Long Island. The Medical Society of the County of Kings supports the Library, but the use of its books and periodicals is granted to all members of the profession of Long Island. Further, the librarian of this collection would at any time, at the request of any of our members, procure from the Academy of Medicine, or from the Library of the Surgeon-General's office in Washington, any book or periodical which is required of him. The library is the central point around which the medical profession of Long Island should revolve, and as such it should receive the support of all of our members.



## MEDICAL NEWS.

Edited by JAMES M. WINFIELD, M.D.

**South Hampton Hospital**—The State Charity Commissioners have granted a charter to the South Hampton Hospital.

The erection of the hospital will be begun immediately.

**Bradford Street Hospital**—Contracts have been let for a new hospital in East New York to take the place of the Bradford Street Hospital. The new edifice with rooms for one hundred patients will cost \$350,000.

**Nassau Hospital**—Dr. E. H. Pershing, of Lawrence, has been elected to the Surgical Staff of the Nassau Hospital in place of Dr. Lanehart, who resigned to become Surgeon-in-Chief of the new Hempstead Hospital.

**Long Island College Hospital**—The second wing of the Maxwell Memorial of the Long Island College Hospital was opened for inspection Monday, December 20th. When the new building is finished it will be one of the best equipped hospitals in the country.

Mr. Charles M. Pratt, of the Board of Regents, has endowed two beds in the new hospital to be known as the Charles Jewett beds, and has erected a bronze tablet in the lobby in recognition of Dr. Jewett's services to the institution.

**Hospital for Tuberculosis**—The Staten Island Tuberculosis Hospital was already in great part completed when the city gave an appropriation of \$1,350,000 recently. One million dollars had already been appropriated. The building can now be completed and will furnish accommodations for one thousand patients.

**Hempstead Hospital**—The new hospital at Hempstead, which was begun in October, is rapidly approaching completion; it is to cost, approximately, fifty thousand dollars. The building is of brick, forty-two by eighty feet, three stories and basement.

The total expense of construction and furnishing will be borne by Mrs. O. H. P. Belmont.

**Jamaica Hospital**—The authorities of the Jamaica Hospital report that 878 patients were cared for at that institution during the past year. Of these 658 recovered, 39 improved. The total expenditure for the year amounted to \$20,625.47. Dr. Ordineau's legacy amounted to \$6,000.

**Jewish Hospital**—The directors of the Jewish Hospital have undertaken the construction of a nurses' home, which will cost about \$100,000. The isolation house and laboratory which was begun early in the autumn is nearly completed.

**New York Academy of Medicine**—Because of the increase in membership of the New York Academy of Medicine, and the lack of space for the rapidly increasing library, it was proposed at a meeting of the directors, December 2d, to submit to the members a proposition for the erection of a new building to cost about \$700,000. The proposed improvements include an increase in the library space of from 90,000 to 225,000 volumes, and the enlargement of the present building by the purchase of the adjoining lot on the east. The president appointed the following committee to submit a report December 16, and suggest a site for the new building: Drs. Edward G. Janeway, Joseph D. Bryant, Abraham Jacobi, Algernon T. Bristow, Simon Flexner, Joseph A. Blake, Reginald H. Sayre, A. Alexander Smith, Charles L. Dana, Arthur M. Jacobus, W. Gilman Thompson, William C. Lusk, L. Emmett Holt, Herman L. Collyer, Henry S. Oppenheimer, Haven Emerson and Charles N. B. Camac.

**To Fight Hookworm Disease**—Government health experts are unanimous in expressions of gratification because of John D. Rockefeller's munificent gift of a million dol-

lars to fight the hookworm disease. Surgeon-General Wyman, of the public health and marine hospital service, said to-day:

"I am very glad to learn that an effort is now to be made to eradicate this disease, which it is conservatively estimated affects 2,000,000 of our people, principally in the South. It is evident from the correspondence which passed between Mr. Rockefeller and the commission to which he has intrusted the fund that they contemplate a campaign of education."

**Bequests to Charities**—By the will of the late John S. Kennedy, \$2,250,000 is devised to the Presbyterian Hospital, \$25,000 to the New York Infirmary for Women and Children, and \$10,000 each to the Manhattan Eye and Ear Hospital, the New York Orthopedic Dispensary, the Fordham Home for Incurables, and the New York Society for the Relief of the Ruptured and Crippled.

By the will of the late Mr. Mitchell Valentine, one-half the residue of an estate, after the payment of certain small bequests, is bequeathed to the Presbyterian Hospital. The value of the bequest is estimated at \$1,000,000.

The will of the late Emanuel Einstein bequeaths \$10,000 to Mount Sinai Hospital and \$5,000 to the Montefiore Home for Chronic Invalids.

The will of Edward O. Kindberg, recently admitted to probate, leaves the residue of his estate, worth about \$100,000, to the Presbyterian Hospital.

George Crocker, who died on December 4th, left property valued at about \$1,500,000 to Columbia University, the proceeds of the sale of said property to be used in the prosecution of researches as to the cause, prevention and cure of cancer, and in case the progress of science should at any time make such researches no longer necessary, the fund to be applied to other re-

searches in medicine and surgery as may be determined by the trustees. The fund is at no time to be used for the erection of a building; hence the acquisition of this fund will lay on Columbia University the responsibility of providing a suitable building for this kind of work.

**Andrew McCosh Memorial**—The Andrew J. McCosh Memorial Committee has announced that \$116,000 have been received. The committee has not decided definitely on the memorial, but the fund probably will be used in the erection of an operating pavilion for the new Presbyterian Hospital.

**Dr. P. J. Flynn**—Justice Garretson granted a writ of mandamus to Dr. Flynn, one of the Coroner's physicians of Queens County.

The Justice reviewed at length the right of the coroners to appoint physicians and ruled that Drs. Flynn and Frey had been legally appointed, but Dr. Nammack had not been, the fact that Dr. Nammack was a volunteer fireman was unimportant, the Justice declared that the term of the Coroner's physician terminated with that of the Coroner appointed.

**Medical Society of the County of Kings**—Dr. J. M. Van Cott gave a smoker at the Medical Library Building, 1313 Bedford Avenue, Saturday, December 18th, 1909.

Mr. George D. Pratt exhibited his notable collection of moving pictures of hunting experiences, etc.

**The Neurological Hospital and Dispensary** at 149-151 East 67th Street was opened early in December.

The Hospital consists of two wards, one for males and one for females, into which suitable cases will be received free of charge; of private wards in which the charge for care and treatment will be from ten to fifteen dollars a week; and of private rooms.

The Dispensary will be open daily except Sundays and holidays, from two to four for charity cases only. During these hours, one of the Medical



Board and his assistants will be in attendance.

In addition to the Medical Board, the Medical Staff will consist of a surgeon, an orthopedic surgeon, an ophthalmologist, a psychologist, a resident physician and a laboratory director.

### PERSONALS.

**John C. McEvitt, M.D.**, who was recently promoted from surgeon of the second battallion naval militia with rank of lieutenant to surgeon on the staff of Capt. Jacob Miller, Commander of the naval forces of the State of New York, with the rank of Lieutenant Commander, was tendered a testimonial dinner by the officers of the second battallion, at the Union League Club, on the evening of December 4th.

**Dr. R. L. Dickinson** has been elected president of the New York Obstetrical Society.

**Dr. Clarence R. Hyde** has been elected corresponding secretary of the New York Obstetrical Society. He is also president of the Woman's Hospital Association.

**Dr. Ernest Schalck** is spending the winter in Germany, studying in the clinics of Berlin.

**Dr. J. B. Deaver.**—The Officers and Fellows of the Manhattan Medical Society tendered a reception to Dr. John B. Deaver, of Philadelphia, Friday evening, December 17th, 1909.

### MARRIAGES.

**Royal Hamilton Fowler, M.D.**, to Miss Lillie Marshall Place, both of Brooklyn, November 24, 1909.

**John Henry Ohly, M.D.**, of Brooklyn, to Miss Helen Hollowell, of Manhattan, Saturday, November 27, 1909.

**Henry W. Boice, M.D.**, to Miss Fanny E. Glassey, both of Brooklyn, November 24, 1909.

**Carol L. Nichols, M.D.**, to Miss Hazel L. Howe, both of Brooklyn, November 2, 1909.

### DEATHS.

**Samuel B. Smallwood, M.D.**, of Astoria, L. I., died at the Post Graduate Hospital, New York, November 28, 1909.

**Ferdinand G. Valentine, M.D.**, of New York City and Bell Harbor, L. I., died at his home December 6, 1909. Dr. Valentine was an active member of the Associated Physicians of Long Island.

**Clifton Mayfield, M.D.**, died at his home, Canarsie, L. I., November 15, 1909.

**Frank E. Risley, M.D.**, died at his home in Brooklyn December 10, 1909.

**Donald G. McPherson, M.D.**, died at his home in Brooklyn November 30, 1909.

**G. J. Bretz, M.D.**, aged 85, died at his home in Brooklyn, November 4, 1909. Dr. Bretz graduated from the Long Island College Hospital in 1864.

### REMOVALS.

**Dr. V. H. Pentlauge** has removed to 380 Sterling Place.

**Dr. James R. Bird** has removed to The Mohawk, 379 Washington Avenue.

**Dr. Roland Hills** has removed to 221 77th Street, Brooklyn.

**Dr. W. A. Griffith** has removed to 76 Hart Street.

**Dr. Harry Meyersburg** has removed to 904 Avenue U.

**Dr. John M. Scannell** has removed to 699 Halsey Street.

# TRANSACTIONS

## OF THE

### BROOKLYN SURGICAL SOCIETY

*Regular Meeting, October 7, 1909.*

#### EFFECT OF BIER'S HYPEREMIA IN TUBERCULOUS OSTEOMYELITIS OF THE TARSUS.

DR. W. A. SHERWOOD stated that this patient, a baby, 15 months old, was admitted to the hospital last February. The past history was negative with the exception that a month before admission a gradually increasing tumor was noted on the right foot. The child was beginning to walk and the mother noticed the child had some pain. The tumor was poulticed and opened and dead bone was discovered. The child entered the hospital with a cellulitis of the foot. Two dorsal and two plantar incisions were made and an osteomyelitis of all the tarsal bones discovered. The bones were widely curetted, nothing but a shell of each remaining. A wet dressing was applied, the child put out of doors and general tubercular treatment started. At the time of admission it was thought the ultimate operation would have to be an amputation. For the first week following operation that idea became more and more fixed. On the eighth day there was absolutely no attempt at repair and the cavities in the bone still persisted. Bier's passive hyperemia treatment was started, the bandage being left on one to three hours twice a day. At the end of 36 hours a more healthy appearance was noted. This improvement persisted, and at the end of three weeks it had gone so far as to leave only a superficial wound. At the end of four weeks the foot was entirely healed.

The case was interesting because of the extent of the disease. It seemed improbable the foot could recover. There was no improvement until the Bier hyperemia treatment was tried. The rest of the treatment was identical. It was not changed at the time. Within 36 hours after the beginning of treatment there was a distinct improvement. The scars have disappeared in great part.

#### POST OPERATIVE DILATATION OF THE STOMACH IN A CHILD.

DR. W. A. SHERWOOD said this patient, a boy of four years, presented the typical signs of severe inflammation of the appendix four days before coming to the hospital. On admission the recti muscles were more rigid on the right than left side. Operation revealed a gangrenous perforating appendix and moderately advanced beginning peritonitis. The wound was closed without drainage after removing the appendix and cleaning up the peritoneal cavity; the patient's condition was satisfactory for twelve hours. At the end of that time the child began to vomit. In 24 hours the vomiting became more persistent, the child began to hiccough and looked in bad condition. The stomach was not markedly dilated, but presented some evidence of dilatation. The stomach was washed out and the vomiting stopped after 24 hours. It then reappeared. At the end of that time improvement continued until a satisfactory point was reached, so that a small amount of cracked ice was allowed. The vomiting recurred and extreme dilatation took place, and the same treatment of lavage and enemata was tried. This persisted for nine days and rectal feeding was used during this period. The child went on to uncomplicated recovery.

The chief point of interest was the duration, nine days, of almost continuous vomiting, the bowels moving several times a day.

#### SIGMOID INTUSSUSCEPTION.

DR. W. A. SHERWOOD stated that this patient, a five months old baby, breast fed, four days before admission had no bowel movement. Three days before admission the child began to vomit, the vomitus soon becoming bile stained. This condition persisted until the time of admission. There was general abdominal pain.



Examination revealed an extremely distended abdomen and an indefinite sized mass in the lower left iliac fossa. Rectal examination showed a sausage shaped mass at the upper end of the rectum and blood presented on the examining finger. Enemata produced no result.

A left rectus incision was made. This tumor was found to be the sigmoid, which had intussuscepted into the rectum and was very easily reduced. The intestine although it had been in this condition for four days was not even damaged. The mesocolon was not extremely long. No polypi were present. Reduction was accomplished with great ease, a catheter passed into the rectum, the wound closed and the child put back to the breast. The wound healed by primary union.

The particular point of interest was the ease with which this reduction was accomplished and the apparent lack of traumatism to the gut.

#### *Abstract of Discussion.*

DR. J. D. SULLIVAN spoke of an acute osteomyelitis of the bones of the tarsus he saw twelve years ago. The patient, a coachman, met with an accident. He was taken to one of the hospitals in the city and treated for quite a while. They advised him to have the foot amputated. He refused and went home.

When the speaker looked at the foot he thought there was nothing to do but amputate. The man refused. He made a few longitudinal incisions on the dorsal and plantar surfaces of the foot and curetted away nearly all the bones of the tarsus. There was little left but the skin tendons, nerves and vessels. He packed the wound with iodoform gauze. It began to granulate and the patient left the hospital with a good foot, able to walk pretty well. The space between the metatarsal bones and the tarsus was filled up with fibrous firm tissue. The speaker saw him a few years afterward and he had a good useful foot.

DR. J. C. MACEVITT said that in the case of post operative dilatation of the

stomach presented, while it did not exhibit any out of the ordinary symptoms it brought up a point as to the pathology which was interesting. Formerly these cases were supposed to be neurotic, but more recent investigation shows it is due to arterio-mesenteric duodenal occlusion. To determine whether it is due to this occlusion or central paralysis is difficult. The case narrated seemed to him to be of central origin. If it were due to occlusion the symptoms would continue until the occlusion disappeared and not return, but when due to nervous interference recurrence and disappearance is quite frequent.

As to the treatment if we believe it is due to an occlusion, postural treatment should be adopted, either with the patient on the side or the foot of the bed elevated.

Lavage is indicated in all cases, and with the use of strychnine or eserine or the galvanic current over the stomach relief in many cases will ensue, but the strychnine and galvanic current will be of little value in those cases due to arterio-mesenteric occlusion.

DR. F. E. BROWN said in the case of gastric dilatation these various lines of treatment were carried out as a routine. The Fowler's position was used, the child turned from side to side and strychnine used. They did not give eserine as they have had bad results from it.

#### **STRANGULATED INGUINAL HERNIA.**

DR. G. L. BUIST presented the following case histories:

These three cases are not presented with the idea of bringing out anything new or startling, but merely with the hope of emphasizing a few points of importance that have been previously discussed in this society and which have recently been impressed upon the writer by a limited amount of personal experience.

The first case was that of a young man 23 years of age with an old, inactive Spinal Pott's and a large strangulated, direct inguinal hernia, containing the cecum and the appendix. The gut did not

demand resection. A long, radical operation under ether was done, and within 24 hours the patient developed pneumonia, from which he subsequently died. Taking into consideration the previous tubercular history of the patient and the length of the operation, which was due in part to extensive adhesions as well as a slow operator, it would seem that this patient's chances of recovery would have been greatly increased by an operation under local cocaine anesthesia. No tubercle bacilli were detected in the sputum.

The second case—a man 72 years of age, with involuntary urination, having an indirect strangulated inguinal hernia, not requiring resection of the gut, was done under cocaine anesthesia,  $\frac{1}{2}$  of 1 per cent. The patient recovered after a radical operation of 45 minutes duration. Previous to the operation the patient had a hypodermic of  $\frac{1}{4}$  grain of morphine. There was apparently little pain experienced by the patient until the ligation of a portion of the mesentery and the sac.

The third case, that of a child seven weeks of age, with a strangulated inguinal hernia, referred within eighteen hours of the onset of the attack. The operation was done under primary chloroform anesthesia. In this case, being unable to identify the structures with any degree of satisfaction to himself, it seemed to the writer that a rapid operation with ligation of the sac, cord and vas, en masse, would greatly increase the chances of recovery of the seven weeks old baby. The child did recover without any evidence of recurrence up to the present time, some four months. An expression of opinion of the society in regard to the advisability of sacrificing the cord and vas under such conditions was requested.

#### GENU RECURVATUM.

DR. E. W. SKELTON reported the following case:

The case I present as one of genu recurvatum came under my care some three years ago. The mother was attended by a midwife at her

confinement and I was called to see the child when one week old. From the clinical history the only fact elicited in point of interest was that during gestation the mother used the foetal tumor as a resting place for carrying a previously born child then about two years old, using the tumor as a seat, the child sitting astride of it. I mention this as a probable explanation as to the condition. The midwife reported the case as one of breech presentation with the legs under the arm pit of the same side. Through my chief, Dr. Delatour, the case was demonstrated at his office when the child first came under my care. Perhaps some of the gentlemen present tonight will recall the case. Unfortunately, I did not secure a photograph of the child showing the condition, but the fact was that the leg could not be straightened out more than a right angle from the anterior aspect of the thigh and as soon as the pressure was removed the leg would drop back toward the thigh. The quadriceps femoris was materially shortened and the posterior tendons lengthened in proportion. My treatment was posterior splints made of aluminum well padded with cotton and adjusted to the position of the leg relatively to the thigh. The splints were held in place by circular bandages and changed twice daily for sanitary reasons. Once a week the angle of the opening of the split was gradually opened from 90° to 180° and from there on to 240° from the anterior aspect of the thigh. The mother massaged the parts and did forcible flexion and extension at the daily dressings. The treatment extended over the first year, the child developing normally and now has control of the parts, walking quite naturally.

#### GALL STONES RUPTURING INTO DUODENUM.

DR. E. W. SKELTON reported the following case of Mrs. W., aged 65, whom he was called to see on the



morning of August 3, 1908. She gave the history of severe pain in the epigastric area following the ingestion of pork on the evening previous. Clinical history elicited similar attacks of so-called indigestion on other occasions of like character always after some indiscretion in diet. When he saw her at 10 A. M. she was vomiting and had general tenderness in the abdomen, the pain being continuous but not localized. Bowels constipated for three days, which was her usual condition, temperature normal, pulse 84 and her condition fair for the amount of pain she showed and her age considered. I looked upon the condition as one of constipation and acute indigestion and ordered S. S. enema and a course of calomel to be followed by a saline and also a mixture of bismuth, cerium oxalate and glycothymolene to be given after the bowels had moved. On August 4th I learned that the vomiting was less, but that she could not retain her food. Bowels had not operated and patient seemed to be in mild shock. Vomiting appeared to be greenish in color and there was a tumor to be felt in the left iliac region. He advised removal to the hospital on the diagnosis of obstruction, but the consent for operation was refused. Physical examination shows the heart normal, no murmurs. Pulse shows structural changes. Lungs negative. Abdomen not much distended, has slight tenderness in left inguinal region between ileum and the umbilicus.

No tumor palpable. Enema of soap suds, water and oxgall failed to be effective, although some gas was expelled. Patient is in shock, surface of body becoming cold and clammy, vomiting continuous; temperature, normal. Vomit is green, but not fecal; abdomen shows no rigidity. Condition diagnosed in consultation as a gall bladder, one with the passage of a stone. Advised to give Croton oil in divided doses, which was done, without results. Consent was obtained to operate next morning, August 5th, if the patient did not improve during the night. During the night she vomited freely; the vomitus had a fecal odor. Examination showed same condition of abdomen as previously, pulse weaker and irregular; cyanotic and patient very restless. Operation deemed inadvisable and patient grew steadily worse, passing away at 6 P. M.

*August 6th, Autopsy by Dr. Murray.*

Autopsy revealed a perforated gall bladder opening by a membranous channel into the duodenum. I add that it was stated at the time that the opening was not of recent origin. The autopsy notes further state that in the small intestines, about one and one-half feet from the beginning of the ileum, a stone one inch long and three quarters in diameter, of soft consistency, was found obstructing the intestine.

Diagnosis cholelithiasis with perforation of the gall bladder peritonitis and intestinal obstruction.

# TRANSACTIONS

## OF THE

### BROOKLYN PATHOLOGICAL SOCIETY

*Regular Meeting, November 11, 1909.*  
The President, E. E. CORNWALL, M.D., in the Chair.

A report of seven consecutive cases of

#### LAPARATOMIES FOR PERFORATING TYPHOID ULCER,

was read by H. BEEKMAN DELATOUR, M.D.

A paper on the

#### LABORATORY METHODS IN THE DIAGNOSIS OF TYPHOID FEVER,

was read by Archibald Murray, M.D.

#### *Discussion.*

DR. BLATTEIS said, that from his experience in typhoid cases in the laboratory of the Jewish hospital, blood cultures are absolutely the earliest means of a positive diagnosis in typhoid fever. The typhoid bacilli can be isolated from the blood during the prodromal period and even before. Investigators have found that in examining the blood of attendants on typhoid cases they were able to isolate the typhoid bacillus from the blood before any symptoms of the disease appeared, and that the disease subsequently developed and took its natural course. It is important that the blood culture should be taken as early as possible, because the typhoid bacillus can be isolated from the blood in from 90 to 96 per cent. of the cases in the first week of the disease, while toward the end of the second week the results are more frequently negative. It will give a positive result before the Diazzo, before the Widal and before a differential blood count. A leucopænia might be absent in the first eight or ten days on account of the presence of some complication and will fail to aid in the diagnosis. It is common experience to find the blood culture positive and the Widal negative in the early stages of the disease; but as the disease pro-

gresses the blood culture will be more frequently negative and the Widal positive, first 1 in 20 and then 1 in 50.

The urine will show the typhoid bacillus in about 25 to 30 per cent. of the cases; such has been our experience.

DR. MURRAY said that he had nothing further to add to the paper, but would like to ask Dr. Blatteis whether he has had any experience with formalized cultures. I have tried to introduce the method into two hospitals but the internes do not seem to like it. The only things needed are capillary pipettes, a few small test tubes, an incubator and the culture. The latter is always ready, the dilutions are accurate and you avoid the daily planting of a fresh broth culture. If the doctor has tried this method I would like to hear his opinion.

DR. BLATTEIS said, in reply to Dr. Murray's question, that the Widal, as made in the laboratory of the Jewish hospital, is by a 1:20 and 1:50 saline dilution of a drop of the suspected blood with an active culture in plain bouillon of the typhoid bacillus.

A paper was read by DR. GORDON R. HALL on

#### THE DIET IN TYPHOID FEVER.

By DR. AUGUST SEIBERT.

DR. AUGUST SEIBERT, of Manhattan, said that, in selecting suitable food for typhoid, two objects must be kept in view,—1, to avoid harm and, 2, to sustain life.

It appears but natural that milk being a fluid *before* entering the stomach and capable of sustaining the life of infants, should have been selected as the typhoid food par excellence after *Robitansky* and others had cleared up



the pathology of the typhoid ulcers, and after the use of the clinical thermometer and Funderlick's temperature cueroes had taught the course of this ailment. Milk no more than other fluid food could cause hemorrhage or perforation in the ulcerated gut, for these two were the only dangers thought of by the clinicians of 1845 to 1884 that could possibly come from a faulty diet.

But it does seem strange that after Eberth had found the typhoid bacillus; after its biology had been studied, and after it had become known that milk was one of the best culture media for this organism,—that milk should have been retained as the staple article of diet for typhoids, as Osler has it.

When reading over the chapter on Typhoid Fever in the eighth edition of Niemeyer's masterly work, published in 1871, the other night, no difference whatsoever could be found between his diet and his treatment of the typhoid patient, and the recommendations and arguments in the respective chapters of the text-books of today.

It is a fact then that *in this respect* clinical medicine today rests where it was bedded forty-five years ago, contented, self-satisfied and slumbering peacefully and completely ignoring modern bacteriology as though it had never come into our medical life at all.

Is that something to be proud of?

By comparing the typhoid mortality of German cities before and after the installation of central sand filters for their water supply (See Typhoid Fever and Drinking Water, *New York Medical Journal*, Nov. 29, 1902), I could show that at least 90 per cent. of all typhoids are water-born. In the report of the Health Commissioner Dr. Darlington to the Mayor on the filtration of the water supply of New York, the results of this investigation are embodied in the form of charts illustrating this fact—about 5 per cent of all typhoids are milk-born. Milk-bred typhoid epidemics show a higher mortality and a more virulent character than the water-born, no doubt because the infected milk remains so much longer in the alimentary canal

than infected water. The longer the contact, the greater the chance for infection and the larger the amount of infectious material taken into the circulation.

But milk is not alone one of the best culture media for the typhoid bacillus outside of the human alimentary canal, but also inside of it, for, given to the patient, it is infected on coming in contact with the inner surface of the typhoid gut, no matter whether it had previously been peptonized, pasteurized, sterilized, changed into clabber or kummys, or diluted by cereals for its watery constituents are speedily absorbed while the curds remain in a long, narrow digestive apparatus, where the normal secretions are reduced to a minimum and the power for assimilating and moving along food has been brought almost to a standstill.

The number of typhoid organisms in the alimentary canal (like most of the other varieties) are *increased* by milk-feeding. Dr. Hallock Park says verbally: "Milk makes the bowel contents more suitable for the preservation of the typhoid bacilli." The more bacilli in the bowel—the more must enter the blood, and the higher the temperature and the severer the toxæmia. Or can anyone assume that after the *first invasion* of typhoid bacilli from the infected food into the intestinal wall has taken place, no more of these organisms will enter the tissues from the bowel contents *during the further course of the attack*, possibly awed by the presence of the physician and the nurses at the bedside?

As typhoid bacilli multiply in the milk-contents of the bowel, toxalbuminoid substances form, which locally cause intestinal paralysis and ultimately fatal tympanites. The more typhoid bacilli, the better the culture medium for them; and the larger its quantity,—the more toxin, and the greater the danger for the patient.

Except possibly in malignant cases, at first but *few* ulcers are present in the typhoid gut, increasing as the supply of Eberth bacilli reaches and spreads over its inner surface. Milk

remaining in the bowel *long enough* and presenting sufficient bulk, necessarily facilitates the distribution of these organisms over a larger area, their entrance into the mucosa and the formation of new ulcers. The more ulcers—the more chances for hemorrhage and perforation.

If these deductions are correct, then a milk-free fluid diet, which does not coagulate and is quickly absorbed, and regular rectal enemata, must render severe typhoid infection milder and shorten the duration of the attack by diminishing the quantity of typhoid poison in the alimentary tract.

Since October of 1889 the author has been enabled to test the above plan of typhoid treatment in the first medical division of St. Francis' Hospital. The following rules were followed in all cases:

1. If nausea were present on admission, the stomach was washed out. Then two doses of calomel, each containing two grains, were given within two hours.

2. Rectal irrigations with three pints of warm water were begun at once. In severe cases every three, in milder ones every six, and in mild cases every twelve hours. Bowel hemorrhage, appendicitis, and perforations were the only contraindications.

3. During the first day of treatment nothing but cold water was given.

4. From the second day on, one-half pint of strained rice-, oatmeal-, or barley-soup, containing the extract of half a pound of meat and the yolk of a fresh egg, well spiced, were given every three hours, five times daily. During the night cold water alone was offered.

5. During the first three days of treatment the patients were not urged to swallow all of their soup, but were persuaded to drink cold water every hour by day and by night. From the fourth day on, strained pea-, lentil-, potato-, and tomato-soup with rice were added to the menu. The desire for more food, coming in uncomplicated cases not seldom on the fifth or sixth day, was met by giving the soups

thickly made. The lower the fever and the more marked the hunger, the thicker the soup. To very hungry patients two or three zwiebacks were given with their soup at the end of the first week. Orange juice was given in water three times daily. Egg albumin was not given, on account of the possibility of forming toxins.

6. Before each meal fifteen to twenty-five drops of hydrochloric acid were given in one-half ounce of water.

Alcohol was given only to topers. Cold baths were *never* employed, even in hyperpyrexia. Opium was used only in bowel hemorrhage.

During complicating pneumonia sixty to one hundred and twenty drops of 20 per cent. camphorated oil were injected hypodermatically, twice daily. No other medication was used.

The results of this plan of treatment were the following:

1. Nausea, headache, delirium, insomnia, tympanites, and diarrhea disappeared in most cases after two to three days, and did not recur later on.

2. In uncomplicated cases the temperature began to drop after twenty-four to forty-eight hours by  $\frac{1}{2}^{\circ}$  to  $1^{\circ}$  F., daily, and reached  $99^{\circ}$  F. in the rectum on the morning of the ninth, tenth, eleventh, or twelfth day of treatment, irrespective of the duration of the attack before admission. In a smaller number of cases this occurred within the first week of treatment.

3. In cases admitted with complications (like pneumonia, nephritis, and phlebitis) the intestinal symptoms (tympanites and diarrhea), as well as those of systemic infection of the nervous system (delirium, headache, and insomnia) usually disappeared as readily as in uncomplicated cases, while the temperature, the pulse rate, and the respirations, remained at the height characteristic of the local processes.

4. The complications disappeared more readily than under the former milk diet.

5. Later complications very seldom developed in cases admitted without complications.



6. The loss in body-weight is much lower than in milk-fed cases, because the soups and broths are assimilated and the febrile period is shortened to about one-third.

That milk can increase the typhoid toxæmia is admitted by most authors, for they advise its discontinuance *after* intestinal paralysis and tympanites have set in. Why then not *prevent* them by leaving out milk from the start? Do we withhold Behring's serum until the diphtheritic patient presents signs of heart failure, and do we continue feeding milk to enteritic infants until collapse sets in? This we consider criminal, but is it better to furnish the typhoid patient with a food which only promotes the welfare of his enemies in his bowel, prolongs his illness and increases the dangers of life?

During the twenty years I have practised and advocated this plan in typhoid fever, I have not been able to convince any one of its great advantages by arguments, and I do not expect to do so to-night, but I can state that all those who gave it but a trial in one single case never returned to the old method. The Germans have a good saying: "Trying is superior to study."

DR. BLAKE said: I did not hear the beginning of Dr. Hall's paper, so am not in a position to discuss the first part of the paper, except that I note he advocates a more liberal diet than has been commonly given. When we consider what seems to have been fairly well proved by experiment within the last few years, namely, that a typhoid patient requires, in order to maintain a nitrogenous equilibrium, about twice as much food as a normal individual who is doing fairly hard work, we can realize the absolute insufficiency of the diets which have been given in past years, and the reason, at least in part, for the enormous loss of weight which has characterized typhoid fever patients in the past. An ordinary individual requires daily in the neighborhood of three to four thousand calories in the twenty-four hours. A

person with typhoid fever, it has been shown, in order to maintain a nitrogenous equilibrium, requires anywhere from six to seven thousand calories. Just here comes in the difficulty of maintaining such patients in flesh during the period of illness. They require more food than the normal individual who is working fairly hard, and at the same time are so ill that they are unable to digest it. Particularly is this true of the proteid elements of the food and to a less extent of the fats. The one class of food-stuff which is most easily digestible and which can be taken by typhoid fever patients in greatest amount, is the carbohydrates; and a diet which consists very largely of carbohydrates approaches a perfect diet in typhoid, no matter how we get the carbohydrates, whether it be partially digested starch or some of the sugars. Personally, I prefer a milk diet to which is added various of the so-called cereal foods, in regard to which you have heard the remarks of the previous speaker. I think it has yet to be proved that a milk diet furnishes such a favorable culture medium for the typhoid bacillus, as has been assumed by certain investigators. It is all very nice to put typhoid bacilli and milk together in a test-tube and watch the growth of the bacilli; but we are not in a position to say absolutely, and it certainly has not been proved to the satisfaction of the majority of the profession, that milk in the human stomach, after it has been acted upon more or less completely by the gastric juices, serves as a culture medium the same as it does in the test-tube; and when it is modified by some of the cereal foods, it probably serves still less as a culture medium. My experience with a considerable number of typhoid patients was during the three months, April, May and June of the year 1899, when I was interne in the Brooklyn hospital. That was just after the Spanish-American war, and we were having a considerable number of typhoid patients. On beginning my services, I received from my predecessor a cer-

tain number of patients who were in various stages of the disease, and on the termination of my service I turned over to my successor a certain number of patients in various stages. Counting all together, I saw and treated about fifty cases. We treated these on the general principles that I have enunciated,—a milk diet modified with cereals and with a certain amount of the vegetable soups; and of the cases so treated, one person died,—in other words we had a death rate of 2 per cent., and I do not think that that can be much improved upon by any hospital in the city. Certainly at that time the death record from other hospitals was very much in excess of this. One of the features of the treatment was the giving of hydrochloric acid to every patient when the digestion seemed to be much impaired. Another feature was the giving of orange, lemon and pineapple juices and the various substances extracted from vegetables by boiling. In private practice I have followed the same routine with satisfaction and success. If the gentlemen will only consider that the typhoid fever patient is lying sick in bed four to six or even eight weeks and needs a certain amount of green vegetables or fruits, and will consider the effect on a normal individual of the deprivation of such vegetables or the extractives derived from them, they will realize some of the results which must attend the treatment of typhoid fever on many of the diets formerly advocated. If you take any of us in this room and deprive us of green vegetables or of fruits or anything of that kind for six weeks, pretty nearly every one of us would have scurvy, and this is true of many typhoid patients before they finish with their four to six or eight weeks;—not the result of the typhoid, but pure scurvy due to deprivation of vegetables,—not having the salts and fruit juices that they were accustomed to have and which are necessary to an individual's well-being. I believe in a more liberal diet,—a diet which consists of a very large proportion of carbohydrates, a diet

which includes a certain proportion of fruit juices, and a certain number of vegetables boiled and strained to get the vegetable salts and extractives. Patients fed on such a diet will do better than on the freak diets which have been advertised in the last five years. If anyone will start to-day and try taking a large number of eggs a day for the rest of the week, I think this time next week he will be a sadder and somewhat wiser man; yet that was one of the diets that was advocated for typhoid patients a couple of years ago.

DR. MOSHER said, that it would be interesting to know what treatment had been followed in these cases. Nothing has been said about medication at all,—may there not be something in that which has had a bearing upon the cases?

DR. A. D. SMITH said, that Dr. Hall had given in some detail the diet he advocates, and that he thought it would be well if Dr. Seibert would give us the details of his diet also.

DR. FAIRBAIRN said, that in the main, Dr. Seibert appears to believe in a liquid diet. While agreeing with his position that it is unnecessary to confine a patient to a milk diet, I must differ from him in his statement that milk is a detriment,—a harmful article of food in this disease. In time past I have seen hundreds,—I use the number advisedly,—do well on milk diet alone. I now use the various soups made of peas, beans and lentils,—without meat and well strained,—fruit juice, preferably orange juice, is also allowed.

It is always interesting to watch the diet and therapeutic pendulum "in the extreme excursions" it makes in this disease. It is now swinging to therapeutic nihilism, as in pneumonia, and dietary extravagance. There is little foundation for it, either in the pathology or needs of the patient, or in his ability to digest and assimilate.

You have decrease in digestive power, an enteritis, and a liver undergoing pathological changes. The liver cells soften, sometimes become necro-



tic, you have intestinal putrefaction and its products will pass this guard, the liver, and enter the circulation and cause trouble if you force the diet beyond certain bounds. Many a person, in health, would be made sick by the stuffing diet sometimes attempted in this disease.

A word of caution, therefore, is in order as to diet in this disease. Errors in this particular will cause rise in temperature, and an aggravation of many symptoms, and will invite relapse or reinfection. Remember, long and painful illness, and it may be a fatal issue, are the recorded results of mere errors in diet through the wilfulness of the patient.

DR. COUGHLIN said, that he believes we shall have to agree that Dr. Hall's cases and also the ones mentioned by Dr. Seibert were of the mild type of the disease. For the past few years it would appear that most of the cases one sees were of this mild form. Take the so-called Bath Beach epidemic, three or four years ago. These cases were, as a rule, extremely mild. About forty reached the Norwegian hospital and all, with the exception of one or two, recovered on a diluted milk diet. The cases Dr. Seibert speaks of I have no hesitancy in saying would do just as well on a diet of modified milk. He speaks also of twelve cases he has seen within the past few days without tympanites being present. I have seen that number of cases of typhoid within the last few days without tympanites being present; these patients were fed on a diet essentially of milk.

The statement about milk being advocated about forty or fifty years ago is not a correct argument. I will take you back to the time of Hippocrates, 460 B. C., when he cured an Indian Prince by sending him up on the mountain top, made him live in a tent so that he could have plenty of fresh air, feeding him at the same time on eggs, butter and milk. In this way he cured him of consumption. Because this was the treatment then, it does not prove that our present treatment of tuberculosis is wrong.

DR. CORNWALL said, in regard to the "milk diet" which has been referred to several times, I think there is a misconception here or a failure to be explicit. The "milk diet," which was formerly the staple diet in this disease, is little used now, at least by those whose knowledge of typhoid dietetics is up to date, but properly modified, milk as an element in the typhoid dietary is a very different thing, which cannot be lightly cast aside. Its value is too great and too obvious. I never give a typhoid patient pure milk, but I give him modified milk, unless there is a special contraindication, along with other things. I modify the milk by scalding and dilution with one-third its bulk of barley water, by peptonization if there is gastric irritability, and by scalding and subsequent curdling in fine flakes with a pure culture of the lactic acid bacillus. The last named modification I find particularly acceptable to most typhoids and suitable to their intestinal conditions. Besides this *modified* milk, I give other foods, and the list is considerably long, including albumin water, strained orange juice (regularly, to supply the "fresh element"), grape juice, barley water, oatmeal jelly, plain jellies made with gelatin, ice cream, tea, coffee, and broths, which are given occasionally as appetizing drinks and not as food. This diet is essential fluid, in which modified milk is an important element. In my experience it works well, and tympanites is almost unknown among my patients and emaciation is not marked. At the present time I have twenty typhoids under my care in two hospitals, sixteen in one and four in the other, all on this diet, and not one of them shows tympanites. I cannot believe that this diet in which modified scalded milk is an important element is more productive of intestinal putrefaction than one in which meat and egg yoke proteids enter largely. And in regard to the quantity of food given I cannot agree with those speakers who advocate three thousand and more calories. I have seen many patients do well on fifty to seventy-five

grams of proteid and 1,500 to 1,800 calories, and believe that the average typhoid is not in condition to take care of much larger quantities than are expressed by the higher number above given, and often temporary changes in condition require very much greater limitation of the amount of food taken. As for giving anything but fluid food during the febrile period and for a week or ten days after, I do not believe that it is safe. The dietetic pendulum, which a few years ago swung strongly to the side of starvation aggravated by purgatives, is now being pushed to the opposite side, of solid food all through the disease. If we wait, I think it will come back again to the golden middle.

DR. T. B. HEGEMAN said, that we have heard the experience of the hospital men and it may be of interest to hear the experience of strictly private practice. In some twenty years of private practice, I have had perhaps one hundred cases of typhoid fever, with a mortality of three; the mortality occurring in the first fifty cases; I have had no deaths in the last fifty cases.

I well recall an autopsy that I saw at the New York hospital about twenty years ago on a patient who died of typhoid and who had been on an exclusive milk diet of about two quarts daily; Dr. Ferguson, who performed the autopsy, said to us "That while milk is fluid before it is taken into the stomach, it may become very much of a solid when it reaches the small intestines;" in this case the small intestine was filled with a coagulated mass of casein which it would seem no peristalsis could push along except as a matter of days.

However, in my early experience, I did use milk very largely, but I soon began to discontinue its use in typhoid cases, because it seemed to me that the patients did not properly take care of it, and as my experience increased with a larger number of patients I soon discarded milk as an exclusive diet and began the use of fruit juices, cereal gruels and strained meat broths

and vegetable soups, because this diet seemed to furnish more nutrition and less tympanites; I would add a little milk in some cases if the patients seemed to take care of it and the stools showed no cruds. Liquid peptonoids were added when the patient did not seem able to take enough of the liquid diet mentioned.

The result of my experience has convinced me that a proper diet is a liquid one composed of fruit juices, cereal gruels, meat broths, vegetable soups and liquid peptonoids where indicated; broths and soups to be strained and no solids to be given until several days after defervescence is complete.

DR. HERRIMAN said, I did not hear the paper read, but I would like to say that I used to use the milk diet, as was the custom, but for the last three years I have first treated the patients with actual starvation. The medication by calomel principally with hydrochloric and about 75 per cent. of the uncomplicated cases would be, so to speak, cured. After the first three or four days lemonade in moderate amounts for thirst is given. When the temperature falls, they can take their chocolate with milk, or anything that is reasonable, but to begin with, until the temperature falls, there is absolutely nothing given in the line of food.

DR. SEIBERT, in answer to the question, said: Milk is not given until the temperature has been normal for a few days and omitted again in case a rise occurs. Solid food is not given until after the temperature has been normal for a week. Before I adopted this plan and gave milk, my cases ran like those mentioned by one of the speakers, from six to nine weeks of fever. Since I have left out milk and used enemata regularly the course of my cases has been shortened to one-third of the former duration, and all have been rendered milder. These are the two cardinal points in which the milk-fed and milk-free cases differ. To say that of all our cases treated during the last twenty years in my



hospital service, over 400 were mild, needs no answer.

I may state that during the last two years this plan has been tested by some of the other visiting physicians of St. Francis' Hospital and found so superior to the old method that its adoption was secured. Drs. Alexander Lambert and Cyrus Strong, of Bellevue Hospital, and Dr. Kemp, of the Red Cross Hospital, also use the milk-free fluid diet, and Dr. Kerley in the last edition of his text-book, "The Treatment of the Diseases of Children," highly endorses this plan on page 479.

No doubt but that in time a more liberal diet than soups, broths and water will be found which, like these, does not increase toxemia and prolong the attack, but this future typhoid diet will not include milk, for milk does both.

DR. HALL said, in conclusion: I have listened with great attention and interest to Dr. Seibert, and want to add only this: He is convinced that milk is not the best, but the worst diet for typhoid, and while I am using milk in part, I am not sure but that we are going to become converted to Dr. Seibert's view before a very long time. The question has been raised as to the medication that we do use,—that is not of so much consequence perhaps as to what we do not use.

We have had several cases go through without any medicine whatsoever,—simply proper food and sponging with care, and they seem to do well. We do not start right in with strychnine; it is given when it seems necessary,—after the second week perhaps; or the third week we may give strychnine, camphor and similar drugs, and I think we are giving less medicine all the time. That the errors in diet produce relapses,—I cannot agree with Dr. Fairbairn on that, theoretically or practically. We do see rises in temperature from errors in diet, but it does not seem to me that a relapse can arise from any cause except a fresh infection of the typhoid bacillus, with a reappearance of the primary symptoms. These ulcers stand a good deal. It has been suggested that there need be no difference between the treatment of typhoid as far as these ulcers are concerned and that of tuberculosis, where there are numerous ulcers in the intestines, and yet you remember the kind of treatment they get. The stomach is filled up with all it can hold, and yet these ulcers do not suffer. An additional interesting fact is that some doctor has been treating gastric ulcers not by starving the patient but by giving food by the stomach, contrary to all rules, and has had better results in that way than by the old method of giving no food by the stomach.

## BOOK REVIEWS.

**Diseases of the Nose, Throat and Ear, Medical and Surgical.** By WILLIAM LINCOLN BALLENGER, M.D. Second Edition. Revised and enlarged, pp. 932, 491 engravings and 17 plates. Lea & Febinger. Philadelphia and New York. 1909.

The first edition of this work appeared but a year ago. In reviewing that edition the writer expressed admiration for the clear exposition of the text and particularly for the large number of illustrations made for the author for use in this work. The second chapter of the book is an

important one. In it the author has aimed to give to his specialty a position relative to diseases of other portions of the body and to point out to students the necessity for regarding this region as a co-operative and integral part of the body at large. The nose, throat and ear show the effects of general diseases, and diseases of this area affect the other organs, directly and indirectly. The close association and interdependence of all the functions of the body are properly emphasized, and it is well to set this fact clearly before the mind of the student, specialist

and practitioner. Office equipment, including instruments, is treated in a separate chapter.

The author writes from a wide experience in his chapter on the nasal septum. The various operations for correcting deformed septa nasorum are well described, and many good illustrations have been included to make clear the exposition of the operations.

The portion of the book devoted to the accessory sinuses is, perhaps, as well fitted as any to show the important progress which has lately taken place in the development of this specialty, and this book contains nearly the latest word on the surgical treatment of that portion of the nose. The removal of the middle turbinates with a swivel knife is apparently accomplished with success by the author. There are some difficulties of technique which the author has not mentioned, but with the usual armamentarium of the rhinologist at hand it is easy to turn to other aids. In the differential diagnosis of frontal and ethmoidal sinuitis the author believes that an important point favoring the latter is a tenderness to pressure above, and medially to, the inner canthus of the eye. Tenderness beneath the brow, that is, the roof of the orbit, is regarded as strongly favoring frontal sinuitis. In regard to the value of skiagraphy in diagnosing diseases of the frontal sinus and other sinuses the author says: (1) If a sinus is healthy, its outline on the plate or negative is clear and distinct (light) and its area clear and dark; while, if diseased, the outlines of the sinuses are less distinct and the areas cloudy on the negatives. (2) The outline depth and width are clearly defined by negatives. (3) The skiagraph may show an absence of disease in cases in which all other symptoms point to need for operation. From the author's remarks we infer that in this case he would follow the indications pointed out by the skiagraphic negative were the latter made by an experi-

enced skiagrapher. The skiagraph does not distinguish between purulent or mucus accumulations. This difference must be determined by other means.

The author emphasizes the importance of the region of the infundibulum in the production of diseases of the maxillary, frontal and anterior ethmoidal spaces. As the openings of these sinuses usually center there and because any abnormality of the middle turbinate of the uncinate process of the bulla ethmoidalis or of the septum is apt to obstruct the outlets of all of these sinuses on the affected side, the author has invented a term for this region, to wit., "the vicious circle." By this he means that the outlets of the sinuses mentioned and also the commonly offending portion (anterior) of the middle turbinate may be encompassed by a circle of comparatively small diameter. Before undertaking operations on the sinuses this region should be explored, and relief to the pent-up sinuses should be secured. We would wish to amend his italicized law, "Never perform a preliminary intra-nasal operation a few days before a radical operation on a sinus" (on account of the frequent occurrence of meningitis thereafter), to read, "Never perform a radical operation on a sinus a few days after an intra-nasal operation."

All the important intra-nasal and extra-nasal route operations are described. Though all the essentials perhaps are described, we would deem it prudent for inexperienced operators to refer also to the original descriptions if possible. As an instance, it may be noted that in the author's description of Killian's radical operation on the frontal sinus, he makes no mention of Killian's recommendation for a preliminary careful packing of the nose with wicks of absorbent dressings, in order that the flow of blood into the throat during the operations may not seriously handicap the anesthetist. The only fault, if fault it is, in a book of such clear, straightforward



diction as this, is that the inexperienced operator may not read between the lines certain difficulties and dangers so well known to the experienced surgeon as perhaps to be deemed unnecessary of mention.

For malignant diseases of the larynx the author practically abandons any attempt at relief by endolaryngeal methods and recommends laryngofissure or thyrotomy and partial or complete laryngectomy.

Turning to the portions treating of the ear we note in the new (2d) edition some important revisions. For example, in the chapter on functional tests of the vestibular apparatus several entirely new pages on the caloric and compression tests to determine normal or abnormal labyrinthine reactions are added and some novel illustrations aid to an easier understanding of the subject.

Notwithstanding the thorough workmanship shown in some of the parts on the ear, as, for example, in the portion just referred to, and in the surgical treatment of the diseases of the ear, we regret to find in the ear portion of the work a lack of the sustained enthusiasm which characterizes that portion devoted to the nose and throat. For example, the cut illustrating the method of inflation by the catheter, characterized by the author as the American method, we consider entirely misleading, while conceding that schematic rather than photographic accuracy is desirable, we are compelled to believe that a method relegating to one hand not only the holding of the catheter, but also the administration of the compressed air, must be highly uncomfortable to the patient, if not altogether impossible in fact.

A greater part of the work is nearly ideal and we would willingly see all obvious errors corrected.

W. C. B.

**Minor and Operative Surgery, Including Bandaging.** By HENRY R. WHARTON, M.D., Surgeon to the Presbyterian Hospital and the Children's Hospital; Consulting

Surgeon to St. Christopher's Hospital, the Bryn Mawr Hospital and Girard College; Fellow of the American Surgical Association. Seventh edition, enlarged and thoroughly revised, pp. 683, with 555 illustrations.

This little book treats clearly and tersely of the general, minor, surgical field, bandaging, asepsis and antisepsis, surgical technic, fractures, dislocations, and general and special major operations, retaining the good, for the most part, of the old, and containing much that is new. The book is clear and concise, its chapters well arranged, and its illustrations, many of which are new, are excellent. It is a volume of the size that can be carried without difficulty in one's coat pocket, and containing the essentials of minor and operative surgery in so available form, it cannot but be an incentive to frequent study and ready reference for the student and busy general practitioner.

L. N. L.

**Surgical Diagnosis.** By EDWARD MARTIN, M.D., Professor of Clinical Surgery in the University of Pennsylvania. Illustrated with 445 engravings and 18 plates in color. Lea & Febiger, Philadelphia and New York, 1909.

The advantage of early diagnosis, especially in surgical diseases, is proven by the lessening mortality in all departments of operative surgery. In part, of course, it is due to more perfect technic and advanced methods of treatment, but these advances in treatment have most often been found necessary because patients suffering with surgical conditions are frequently presented to us already in an advanced stage of the disease. It is in the interest of early diagnosis in its relation to helpful and curative surgery that this book is written.

In the section on Laboratory Diagnosis, Dr. Longscope has written a statement of the help that may be given the surgeon by those who

work with a microscope, culture-media, and test-tube. It is not, in any sense, a detail of the methods employed in the laboratory, but it is rather an interpretation of the findings of the laboratory worker. Dr. Pancoat has written the chapter on the X-ray in *Surgical Diagnosis*, showing both the value and the limitation of this method, and we feel that more might have been added to this valuable section. The attending physician is often responsible for the delay in treatment because he does not recognize the surgical condition when it exists, and it is especially to this class of practitioners that this work is directed. Not only will untimely death be prevented, but the terrible deformities of Pott's Disease, the crippling ankylosis of coxalgia, the pain and disability of bone and joint injuries will be overcome.

The reviewer recommends that all physicians possess themselves of a work such as this on surgical diagnosis.

**The Treatment of Disease. A Manual of Practical Medicine.** By REYNOLD WEBB WILCOX, M.A., M.D., LL.D. Philadelphia, Blakiston's Son & Co. 1907.

The second title of this book, *A Manual of Practical Medicine*, is more appropriate than the first, for it is much more than a treatise on therapeutics; it is, in fact, an unusually complete system of practice. It describes with sufficient fulness to meet the ordinary requirements of most students and practitioners, the etiology, pathology, symptoms, diagnosis, and prognosis, as well as treatment, of nearly five hundred different named diseases, including some that are not found in most works on practice, such as hypertrophic pulmonary osteoarthropathy, amok, Banti's disease, Nashar

fever, Japanese river fever, framboesia, kubisagari, and kalar azar.

The author's therapeutic recommendations are unusually full and explicit, and will prove particularly gratifying to the young practitioner who has not yet learned to treat the patient, and who is anxious for remedies with which to treat the disease; and the more experienced practitioner who has already developed or acquired his own system of therapeutics will find the book interesting because it will acquaint him with the therapeutic opinions of one who is ripe in clinical experience and exceptionally learned in pharmacology. It will probably happen, since therapeutics is still largely a matter of opinion, that most readers will find some therapeutic recommendations in this book which they are unable to endorse, particularly in the line of drug therapeutics, but that does not materially affect the great value of the book as a storehouse of therapeutic lore and as an exposition of the therapeutic opinions of its gifted author. For example, there are probably many who will fail to endorse the author's enthusiastic recommendation of chlorine water in the treatment of typhoid fever, the use of which in that disease he very positively states improves the symptoms, shortens the course of the disease and reduces the mortality below two per cent.

This book, which in many respects is one of the best systems of practice recently published, deserves to be well received by the medical profession, and if the fulness and optimism of its therapeutics offends those who follow Osler's injunction to "distrust the pharmacopeia," they will please the much greater number who love to have their trust in the pharmacopeia strengthened.

E. E. C.



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## SURGERY IN DIABETES.\*

By LEWIS STEPHEN PILCHER, M.D.

IN DIABETES the natural reparative power of the body tissues is lessened to an undeterminable but always considerable degree; whereby convalescence is prolonged, healing is retarded, and the tissues are rendered especially susceptible to infection, and the results of infection are made severe and progressive. Indeed, so well understood is this relation that it is an axiom in surgery that whenever extensive and progressive phlegmonous and gangrenous processes develop, either spontaneous or post-traumatic, the urine should be examined for sugar. The presence therefore of diabetes as a complication of any surgical condition necessarily increases the gravity of the condition. It is especially in the cases of individuals in whom there coexists a condition of arteriosclerosis that the development of diabetes is attended with the most disastrous possibilities. It is due to the combination of these two factors, arteriosclerosis and diabetes, that the so-called diabetic-gangrene of the aged is due, when a third factor, a moderate traumatism with infection, is added. This condition of gangrene is not met with in young diabetics because in them the constitutional condition is more rapid and acute in its course than in the aged. That is to say, the disastrous results of its association with arteriosclerosis do not present themselves because, first, arteriosclerosis is a gradual development of advancing years, and second,

although diabetes maybe itself, in cases of long standing, a cause of arteriosclerosis, the rapidity of the course of the diabetes in the young prevents the excitation of arteriosclerosis in them. It may be well to emphasize the fact that arteriosclerosis is one of the late results of the chronic diabetic condition, and that the two conditions re-act each upon the other in a vicious manner, each aggravating, to a marked degree, the unfavorable conditions produced by the other.

The two serious surgical conditions which most frequently confront the surgeon in diabetics are carbuncle, especially at the back of the neck or upon the back, and gangrene in the lower extremity. Both are affections of old age as well as affections of diabetics and in both the arteriosclerosis element plays an important part with the diabetes. When I recall my own past experience, there stand out very distinctly certain cases of carbuncle in elderly men who were the subjects of diabetes in a moderate degree only; a degree which had not previously noticeably disturbed the general health, or their ability to carry on the active duties of life. In these cases, however, the carbuncular development always proved to be practically uncontrollable, terminating in each case, after a brief illness, in death, in the production of which a variable part seems to be played by diabetic toxemia and the general septicemia. I have, therefore, come to look upon such cases as of the most profound gravity. Many

\*Read before the Williamsburg Medical Society, December 13, 1909.

cases of extensive carbuncle are indeed recovered from, for the occurrence of carbuncle is by no means limited to diabetics, but the development of a carbuncular condition in a recognized diabetic should always be the occasion for the most profound concern. The prognosis of gangrene of the extremities in a diabetic is somewhat better, although still far from favorable. The chief advantage which attaches to gangrene of the extremities in a diabetic is, that it is possible to remove the affected extremity outright by amputation at some point of choice above the region affected by gangrene. If the section is made through tissue that is sufficiently supplied with blood, and if infection is guarded against, healing of the amputation wound will take place. Diabetic gangrene of the extremities is so common an affection that few practitioners escape the occasional responsibility of having to determine what is best to do in such a contingency. Whatever course is decided upon, disaster so often follows that the question as to what is the best course to pursue must always be a difficult one to decide. Some general principles, however, may guide us. As a rule, as long as the malign influence of a pronounced diabetes is present it is certainly wise to postpone, as long as possible, any active surgical interference. On the other hand it must not be forgotten that in some instances after the removal of a gangrenous extremity the constitutional conditions which before had been rebellious to treatment, will now quickly respond so that within a few days after the operation a marked decline in the amount of sugar in the urine takes place and it may disappear entirely as the process of healing advances. General anti-diabetic treatment and local antisepsis are the two lines along which the treatment should go, at least at first. The gradual disappearance of sugar from the urine, under proper anti-diabetic treatment, gives the surgeon these two sources of encouragement. First, that since the diabetes is controllable, the constitutional dyscrasia is of moderate

intensity. Second, that with the disappearance of the sugar from the urine such an improvement in the general condition of the patient may be assumed as would render him a more favorable operative case. In those cases, therefore, in which, under treatment, the diabetic symptoms disappear, a gangrenous condition may, with more confidence, be attacked, and the principles which guide the surgeon in cases of simple gangrene from arteriosclerosis become applicable. When, however, despite anti-diabetic and local anti-septic treatment, the general and local condition does not improve and the advancing gangrene and sepsis and pain begin to so wear upon the patient that further waiting is not without serious danger, operation should be done without further delay. The course of a wound made upon the person of a diabetic must always be expected to be less satisfactory than a similar wound would on the person of a healthy subject,—primary union more frequently fails, and the granulating process is sure to be sluggish and protracted. It is of the highest importance, therefore, that the wound, when its location is a matter of election, should be made through tissues that have a good vascular supply. This is more important in a diabetic than in a simple arteriosclerosis patient.

In the practical application of these principles to the treatment of a gangrenous process appearing in the foot of a diabetic the teaching would be that as long as the primary area of mortification is small, as one or two toes or a limited patch of skin, all operative interference should be refrained from. Warmth to the foot and keeping the dying parts dredged with a non-irritating drying antiseptic powder like boric acid are the local applications indicated, while opiates to control pain, and a general anti-diabetic regimen are the constitutional remedies to be resorted to. When a line of demarcation has formed and the spontaneous separation of the dead from the living tissue is well advanced, if strands of ligament, tendon



or fascia still hold, for these are the last to give way, and often serve as channels along which renewed and progressive infection advances, such strands should be severed by knife or scissors with the least traumatism possible to other tissues. No pressure upon the parts by sutures or dressings should be applied. The granulating process should be encouraged by such a mildly stimulating antiseptic as Balsam of Peru. Under this treatment, in a small proportion of cases, recovery will take place. In one such case I was fortunate enough to secure such a result. A number of years later a gangrene of the other foot developed, extending well upon the dorsum. Amputation was now done at the knee, and again he made a good recovery. We then had to congratulate ourselves that so conservative a course had been pursued in the earlier history of the patient, for he still "had a leg to stand on." In the less favorable cases, which unfortunately are of much more frequent occurrence, in which the gangrene is more extensive, and progressive, infective conditions threaten, amputation is the only resource that holds out any hope. Any attempt to control the advance of infection by liberating incisions and freer drainage is sure to be disastrous. Every new incision in the infected area merely opens up new avenues for infection, and hastens the final lethal termination.

At what point shall amputation be done? No surgeon would advise in such a case that the section should be made in the immediate vicinity of the gangrenous area, but how far above may become a subject for discussion.

The published experience of Küster is often quoted in this connection and loses none of its value by the lapse of time. In the clinic of this surgeon, as reported by Heidenhain (*ANNALS OF SURGERY* XV., 131) there were thirty cases of senile and diabetic gangrene operated upon, eleven of them being diabetic. Küster commenced in each case with low amputation but was always obliged to re-amputate higher up

on account of recurrent gangrene of the wound, so that he was forced to finally amputate above the knee joint in every case where the gangrene extended to the dorsum, or sole of the foot. In six of the eleven cases, ultimate recovery was then secured.

Such poor results from low amputations in conditions of gangrene due to diabetes and arteriosclerosis is the common experience of all surgeons, so that little hesitancy is felt by any surgeon of experience as to the course which should be pursued.

There is no midway course between simple expectant supporting treatment on the one hand, and amputation high up on the other.

It is no easy matter to convince a patient, or his friends, even though he knows that he is a diabetic, who has developed a gangrene of the toes, which is creeping up to the dorsum of his foot, that so severe and radical a measure as an amputation above the knee is at once necessary. The pressure to temporize, and at first to try a less radical procedure is almost irresistible. The best interests of the patient, however, surely demand that if any amputation at all is to be done, it should once for all be done above the knee.

In the technique of amputation, even at this high point, special precautions should be taken to avoid any possible interference with the circulation in the flaps. No preliminary Esmarch constriction should be practiced; the flaps should be fashioned from without inward by the scalpel, and the main vessels should be systematically exposed and tied in the wound; the flaps should be thick and generous and long enough to fall together without tension, supported by gently retentive bandages without sutures. The free escape of all secretions should be provided for; warmth and support, without pressure, should characterize the dressings, all, of course, with the most scrupulous asepsis. With these precautions and limitations a fair degree of success may be expected to attend the surgeon's efforts in cases of diabetic gangrene of the extremities. It

is perhaps not too sanguine to say that in about 50 per cent. of cases recovery may be obtained.

In surgical conditions not dependent upon or connected with arteriosclerosis or intense septic infection, as in the two classes, carbuncle and gangrene, just considered, a more favorable outlook exists. I quite agree with the statement (Fiske, *Annals of Surgery*, XXI., 393) that "while diabetics are not good surgical subjects, nevertheless, with extreme care in the selection of cases and scrupulous attention to asepsis they may be given the benefit of surgical relief." Of course, operations of convenience, such as for

deformities, or benign growths, or hernia, should be refrained from, but operations of urgency or emergency, as for cancer, for ileus, for acute appendicitis, for strangulated hernia, for complete urinary obstruction, or for accidental injuries, should be proceeded with as in any other case. In general it may be said that in any condition in which life or important function is threatened, or the possibilities of happiness or usefulness to an individual are at stake, the co-existence of diabetes, while a serious handicap to be reckoned with, is not an absolute contradiction to operation.

## FOOD POISONING

By E. H. BARTLEY, M. D.

**U**NTOWARD effects sometimes result from eating certain foods.

These results are not always a fault of the food itself but are due to overeating or previous disease of the digestive apparatus, or individual idiosyncrasy. Idiosyncrasies in the use of certain foods are not easy to explain. Some of these are hereditary, or exist in a number of individuals in the same family. At other times the peculiar behavior of certain foods is temporary, while at other periods of life the person can eat that food with impunity.

Some of these idiosyncrasies are the following:

Nausea, or "biliousness" from eating eggs or milk. Some persons can eat one or the other only. Some can eat the white and not the yolk of eggs.

Some persons are unable to eat fats; fresh pork or mutton fat most often disagree, while milk fat disagrees with certain persons, especially certain infants.

Some persons suffer from headache after eating fresh butcher's meat, but not from eating pickled meats. Some persons have uticaria from oatmeal or buckwheat cakes. Others from shell-fish, especially clams or lobsters.

Some have diarrhœa after drinking milk, while others suffer with constipation.

What reason can we give for these peculiarities? Is it a derangement of metabolism, or is it a derangement in the primary digestion. In some cases it is the one and in some the other. In some cases the disturbance is purely in the digestive canal. In such cases two possible explanations are open to us.

1. Certain poisonous cleavage products are produced. This theory is very unlikely.

2. It is due to bacterial products produced by the excessive activity or over-growth of certain species of bacteria in the stomach or intestines. This is the most likely cause of such disturbances.

I have noticed that persons who live for some time very largely on one particular dish are very liable sooner or later to sicken of it and cannot eat it at all. For example, eggs or milk. Part of this is taste and part mental. If one sickens from eating freely of a certain dish, they cannot eat it again for a long time. This is probably a mental disgust and not what we understand by an idiosyncrasy. This



explains the periodical disagreement of certain foods. Milk will generally agree with most persons when taken with laxatives, but when the person becomes constipated it will disagree. Eggs taken freely for a long time are liable to produce so-called "biliousness." The headache from eating fresh meats is probably metabolic. Headache from certain other foods, such as apples or preserves, originate from fermentative changes in the stomach or intestines, and produce headache which we might term a digestive headache.

The causes of ill effects of foods Vaughan and Novy class under the following heads:

1. The food may be infected with poisonous parasitic fungi—as ergot.

2. Both plants and animals may feed upon substances which are not poisonous to themselves but poisonous to man. It is said that the flesh of birds after having fed upon mountain laurel berries is poisonous to man.

3. The flesh of certain animals is unwholesome or actually poisonous during the physiological activity of certain glands. The meat of certain fish during the spawning season is poisonous. Other examples are colostrum and "bob veal."

4. Foods may be infected with specific pathogenic organisms, as cholera, typhoid, diphtheria, etc.

5. Animal food may be derived from an animal, the subject of a specific fever communicable to man. As glanders, foot and mouth disease, tuberculosis, trichiniasis.

6. Foods may be infected with various saprophytic bacteria.

- a. Poisons may be thus produced by decomposition of the food by the growth of the bacteria. Ptomaines.

- b. Soluble toxins manufactured by the bacteria. Extra cellular toxins.

- c. Soluble protein substances formed by bacterial protoplasm which are soluble. *Bacterial proteins* or intra cellular toxins.

The food may be poisonous when eaten, or it may become poisonous after incubation for a few hours in the stomach or intestines. This last is

the usual form of food poisoning. This is often called ptomaine poisoning, but this term is misleading.

Ptomaines are by no means a common cause of food poisoning. Indeed I think they are of rare occurrence in food poisoning.

Ptomaines are alkaloidal poisons formed by the decomposition of the food by bacteria. A toxin, on the other hand, is a poison—of proteid nature—formed in the body of the bacterium. These toxins may pass from the bacteria out into the food,—extra cellular,—or they may remain in the bacteria. *Food poisoning* is almost certainly due to bacteria infection of the food in most cases.

The term Bromato-toxin (*Broma* or *Bromato*, food, and *Toxon*, a poison) has been suggested, and the *bromato-toxin* for poison itself.

Food-poison is more commonly used without attempting to define the nature of the bacterium or the poison concerned.

*Poisoning by Meat.*—Dieudonne (bacterial food poisoning) divides cases of meat poisoning into three groups: (1) Poisoning due to eating meat from diseased animals (usually associated with bacillus enteritidis or *B. para-typhoid*). 2. Poisoning due to eating putrid meat (usually infected with *B. proteus* or *B. coli*). (3) Poisoning due to "sausage poison" (anaerobic *B. botulinus*). In the first group the meat is poisonous when the animal is killed. In 2 and 3 the meat becomes infected after it is killed. The first two gives chiefly gastrointestinal symptoms. The third gives symptoms mostly referable to the nervous system. Cases and epidemics of meat poisoning have been described for many years. Ballinger, 1876, was one of the first to describe them fully. Ostertag collected the history of 85 epidemics occurring between 1880 and 1900, including a total of 4,000 cases. Schneidemuhl analyzed 61 large outbreaks, with about 5,000 cases reported from 1868 to 1898, with 76 deaths, giving a mortality of 1.5 per cent. Thirty-eight of these epidemics were caused by the meat of cows, 15

of calves, 3 of steers, 3 of hogs, 2 of horse meat. In 16 of the 38 cases the cows were killed because of gastric and intestinal disease; in 12 because of diseases after parturition; in 3 of diseases of the udder, and in 3 of foot and mouth disease.

In the veal, intestinal and joint diseases or infection from navel were the chief causes.

In the great majority of these epidemics the disease was caused by forced or emergency slaughtering of sick animals, mostly suffering with septicæmia. In such cases cooking does not destroy the poison, and the meat increases in toxicity with keeping. The meat presents nothing peculiar to the eye and very little to microscope.

Bacteriological examination has shown *B. enteritidis*, one of the typhoid-colon groups (Gärtner, 1888) as the most commonly occurring organism present in the cases studied.

Many epidemics have been traced to this same *B.* or to the para-typhoid bacillus.

*Symptoms.*—These are generally preceded by a period of 2-12 hours incubation, though not in all; sometimes the symptoms appear almost immediately. The attack usually resembles a case of cholera nostras, or acute gastro-enteritis. The stools are yellow, very offensive and fluid. These are attended by colicky pains, vomiting and great muscular weakness. There is frequently either albuminuria, catarrhal pneumonia, urticaria, herpes, erythema, purpuric spots or other skin eruption.

The severity of the attack is proportional to the amount of meat eaten. The mortality varies, but some writers have placed it at 2-5 per cent. The post mortem findings resemble those of typhoid. Congestion of liver, kidneys, spleen and Peyer's patches and the solitary glands.

Poisoning by tainted meat or decayed meat. The toxic properties in this group of cases are usually due to infection of the meat with the bacteria of the proteus group of organisms or to the colon bacillus.

The toxins are not destroyed by

heating. The toxin of the colon bacillus resists a temperature of 184 degrees C. (363° F.) for a half hour.

This form of poisoning is most often seen after eating chopped meat or canned meats, or meats that have been protected from free exposure to air, in tin cans or closed utensils. The symptoms are those of a gastric irritant and run a rapid course, usually without fever. There is here also a period of incubation of 4 to 20 hours. Vomiting, headache; dysenteric foul smelling stools, colicky pains, weakness, pains in back and legs and great depression are the usual symptoms. The weakness may continue for some time after the acute symptoms have disappeared. Deaths are infrequent. Prophylaxis. Swelled cans should always be discarded. After removal from the can, and even after cooking, such meats should not be closed up, but given free exposure to air.

*Sausage poisoning.* Botulism. This group of cases are somewhat different from the preceding, in that the symptoms are chiefly referable to the nervous system. They are called sausage poisoning because they were first described as due to sausage or other meats eaten in an uncooked state. The organism that has been isolated, *B. Botulinus*, was obtained from a ham which had poisoned a large number of persons in Wurtemberg. Probably the most interesting contribution to our knowledge of Butulisms in recent years was made by Van Ermengen in 1895 in a case of meat poisoning affecting about 34 persons, three of whom died. He isolated a bacillus which he named *B. Botulinus*. He obtained a toxin from his cultures of this bacillus, which was very poisonous; .0005 (1-120 gr.) killing a rabbit in 24 hours. The symptoms in the cases poisoned by the ham showed little gastro-intestinal irritation, the symptoms being mostly nervous. They consisted of diplopia, strabismus, mydriasis, ptosis, aphagia, aphonia and anuria. There was constipation in most cases, some colicky pain and headache. The same nervous symptoms were produced in cats by



the toxin given by the mouth. The post mortem examination showed that the changes induced by the toxin were confined chiefly to the cells of the gray matter of the cord, inducing in them, with small doses, a rarefaction of the chromatin elements; with larger doses a disintegration and destruction of the protoplasmic granules, and with fatal doses some of these cells were completely destroyed. Kempner and Pollak immunized animals with the toxin, and produced an antitoxic serum. When this serum was used on animals which had been given the toxin, the nerve cells showed marked signs of repair. These investigations are of great importance in showing why we see cases of such poisoning so slow to recover, and why the symptoms of such poisoning are sometimes so persistent. We have here, perhaps, an explanation of some of the after effects of acute gastro-enteritis in infants, effects lasting for months or years. It is not rare to meet with chorea, transient paralyses, failure to walk, malnutrition, etc., in children, after attacks of cholera infantum or acute gastro-enteritis. This form of meat poisoning seems to be more serious and the mortality is higher than in the preceding forms.

Senkpiehl collected the statistics of 412 cases occurring between 1789 and 1886 with a mortality of 165 or 40 per cent. The autopsy shows very little, as might be expected since the toxin acts mostly on the nervous system.

*Specific Diseases Transmitted from Animals to Man.*—The most frequent of these are tuberculosis (?) pleuropneumonia (?), anthrax, septicæmia, glanders, trichinosis, foot and mouth disease of cattle, tænia or tape-worm, and actinomycosis. These diseases, however, belong to the department of pathology, and are in no sense chemical.

I wish to confine my remarks to those conditions due to chemical poisons or toxins.

*Poisonous Fish.*—Some fish are always poisonous, others are so only during the spawning season, while others are subject to certain bacterial

diseases which are transmissible to man. Fish may also be infected by bacteria after being caught and thus become poisonous. Some fish possess poisonous glands which secrete poisonous substances which are intended to protect them from their enemies. A number of varieties of fish are known whose ovaries are poisonous when eaten. Such poisoning is said to be common in Japan, from eating a fish known as the tetrodon or fugu. Over 60 per cent. of the cases are fatal. The symptoms of fish poisoning as we see it are those of a gastro-irritant poison. The symptoms are frequently accompanied by an urticarial rash.

In 1883-84 about 300 cases of cheese poisoning were reported to the Michigan State Board of Health. Dr. Vaughan investigated these cases and isolated from the cheese a crystalline poisonous product which he named tyrotoxin. Since then he calls it tyrotoxin. Shell fish are well known as sometimes causing violent sickness. Numerous cases of poisoning from eating sea-mussels have been reported. Some of these have proven fatal. Various theories have been advanced to account for them.

In 1887 Brieger first isolated a ptomaine, which he called *mytilotoxin*, from poisonous mussels from Wilhelmshaven. Others have confirmed his work, and the conclusion has been reached that poisonous mussels are always those which have lived in foul water. When they are removed to clean, deep sea water and left there for fifteen days they lose their toxic character. Linder found various protozoa, amoeba, bacteria, etc., in the waters where poisonous mussels were taken. He concluded that poisonous mussels are simply diseased mussels living in foul water. Oysters become poisonous under like circumstances, and it has been demonstrated that they can absorb the typhoid germs and transmit them when grown in water mixed with typhoid infected sewage.

As might be expected the symptoms of mussel poisoning are variable. In some cases the symptoms are those of

an irritant poison, in others they are choleraic, while in others the chief symptoms are nervousness. There is often nausea, vomiting, diarrhoea, urticaria, cardiac depression, constriction in the throat muscles, numbness, partial paralysis, etc. The poisoning from oysters and clams is often of a similar character.

*Oysters and Typhoid*—Herdman and Boyce show that typhoid bacilli when introduced into oysters can live for several days.

Friedenwald and Ruhrah quote (Diet in Health and Disease, p. 165) Pasquire as saying that at Havre, France, cases of poisoning occurred from eating oysters taken from near the outlet of a drain from a public water-closet.

Sir William Broadbent (Br., M. D., Jr., 1894) reported cases of typhoid which he traced to oysters.

H. W. Conn (Medical Record Dec. 15, 1894) reported an epidemic of typhoid at Wesleyan University, Middletown, Connecticut, which he traced to oysters taken from the Quinnepiac River near New Haven, near a drain from a house where there were two cases of typhoid. There were 30 cases traced by him to this source. Some more cases were found at Amherst from eating the same oysters. (See Report State Board of Health, Conn., 1904, p. 243.)

Dr. C. J. Foote, of Yale University, made a bacteriological study of oysters with reference to the bacillus typhosis abdominalis. (Connecticut Board of Health report, 1895, p. 189.)

Dr. Foote concludes that the B. typh. can live at least 8 days in salt or brackish water. In warm sea water they diminish rapidly after the first week but cannot be found after three weeks. He could not demonstrate that the organisms can multiply in oysters, when infected by this bacillus.

Freytag (Zeit. fur Hygiene, 1890) has found that B. typhosis abdominalis would live in concentrated salt solution for 5 months.

Giaksa (Zeitschrift fur Hygiene Val. VT, p. 162) found that the bacilli of

typhoid would live 9 days in sea water.

De Giaksa Authur found cholera germs all dead after first day in sea water which contained an abundance of common bacilli. In sterilized sea water the cholera bacilli reproduced quite well.

Ice cream poisoning, especially vanilla ice cream, is remarkably frequent. The symptoms come on usually within 1½ to 3 hours after eating the cream. These consist of severe vomiting, pains in the stomach and abdomen, diarrhoea and signs of collapse. This poisoning is due to anærobic bacteria. It is believed that the vanilla, owing to its reducing action favors the growth of anærobics. The same cream flavored with lemon was shown by Wasserman to be harmless, while that containing vanilla was poisonous. The vanilla was shown to be harmless. Vaughan and others have found para-typhoid or colon bacilli as the cause of the cases of ice cream poisoning investigated. Puddings have also given the same kind of poisoning, and probably from the same cause.

Pellagra is a very serious and often fatal disease which has been very generally attributed to the use of corn meal as food. It is a disease very prevalent in Italy and Lombardy. In recent years it has become common in our southern states and has been reported in Massachusetts, Illinois and a few other northern states. It is an insidious disease, beginning with gastro-intestinal disorder diarrhoea—with loss of weight, mental weakness, pigmentation of the skin, and erythema and rapid desquamation of the skin on the arms and hands. The prognosis in well developed cases is serious and the treatment is very unsatisfactory. It often appears in the insane. The cause of the disease is probably some mould or bacterium growing in the corn meal.

*Potato poisoning*.—Outbreaks of poisoning from eating potatoes and potato salad have been reported from time to time.

Smiedeberg (Arch. f. exper Pathologic and Pharm. Vol. 36, 1885) re-



ports an outbreak which occurred in 1892 in which 357 members of a battalion were attacked with headache, vomiting, diarrhoea, prostration and slight delirium. In some there were dilated pupils, syncope, rapid pulse, cyanosis, etc. In the earlier epidemics the cause of the poisoning was believed to be the presence of an unusu-

ally large amount of the alkaloid solanin, which occurs in potatoes. Later investigations by Dieudonne have shown that this is due to bacteria of the proteus group. The poison is apt to develop on peeled potatoes on standing even a few hours. Typhoid and para-typhoid grow well on potatoes.

## LABORATORY METHODS IN THE DIAGNOSIS OF TYPHOID FEVER

By ARCHIBALD MURRAY, M.D.

THE methods employed in the laboratory diagnosis of typhoid fever may be conveniently grouped under the following headings:

1. The Blood.
2. The Urine.
3. The Feces.
4. The Skin.

Under the heading of blood would be included—

- a. Blood Cultures.
- b. The Widal Reaction.
- c. The Leucocyte Count.

Under the Urine would come —

- a. The Diazo Reaction.
- b. Isolation of the typhoid bacillus in cases of bacilluria.

The isolation of the typhoid bacillus from the feces.

The Typhoid Cutaneous Reaction.

For the early diagnosis of typhoid fever by far the best results are obtained with blood cultures. For example, in the first week of the disease Kayser obtained positive results in 94. per cent. and 95. per cent. of his cases. In the second week 50. per cent. were positive and in the third week 4. per cent.

Stühlern in the first week, 95. per cent., in the second week, 60. per cent., in the third week, 16. per cent. Coleman and Buxton in an analysis of 1,600 cases found in the first week 89. per cent., in the second week, 73. per cent., in the third week 60. per cent., and in the fourth week 26. per cent.

These figures show that the organisms appear to be in the blood from the very beginning of the constitutional symptoms and diminish as the disease progresses. In making a blood culture, the arm at the bend of the elbow should be scrubbed with soap and water, followed by alcohol and some antiseptic solution. If the veins are not prominent a bandage may be tied around the arm near the shoulder. In order to avoid infection it is better to incise the skin over the vein. The syringe should be of glass, sterilized and hold 5. or 10. cc. The needle is now pushed into the vein and the blood enters the syringe, which should fill with very moderate suction. The blood is now added to some form of culture medium. Epstein obtained the best results with a 2. per cent. glucose agar, allowing 0.5 to 2. cc of the patient's blood for 15. cc. of the medium. The reaction of this medium was 0.9 per cent. acid to phenolphthalein. The mixture was then plated out in Petri dishes and the bacilli usually appear within the first 24 to 36 hours of incubation.

Conradi uses a mixture of ox-gall, peptone and glycerine. Kaiser uses plain ox-gall. 2.5 cc of blood are added to 5. cc of sterile ox-gall in a test tube. The mixture is incubated for about fifteen hours, when a few drops of it are planted on Endo's or Drigalski-Conradi plates. The colonies growing on these plates are then put through the regular cultural and

agglutination tests for the typhoid bacillus.

To prove that a growth on any of these media is a typhoid bacillus the organism must be a bacillus, it must be Gram-negative, it must be actively motile and it must respond to the cultural and agglutination tests for the typhoid bacillus.

The relationship of the positive blood culture and the positive Widal reaction has been studied by a number of observers. The statistics of Coleman and Buxton show that many of the positive cultures antedate the presence of the Widal reaction. Ghaetghens' studies show that, of 917 Widal tests made in the first week of the disease, 25. per cent. were negative, in the second week 10. per cent., and in the third week 4.7 per cent. He also found that in 140 cases in which the Widal reaction remained negative, 34 were diagnosed by positive blood cultures. The lack of relationship between the result of the culture and the type and severity of the disease has also been noted by nearly all the writers who have reported on large series of cases. The result of the blood culture seems to bear no relation to the height of the temperature. Coleman and Buxton state that in cases with a long duration, the bacillus is in the blood as long as the temperature persists. What relation the number of bacilli present bear to the prognosis of a given case has not been decided.

Prior to 1906 most investigators were agreed that the bacillus disappeared from the blood about the time of defervescence. Since that time some positive results have been obtained during convalescence. Coleman and Buxton's investigations show that it cannot be assumed that the bacilli disappear from the body, even though they disappear from the blood at the beginning of convalescence and their idea is that the organisms lie latent in the body for undetermined periods (typhoid carriers are not included in this statement) and small numbers may find their way into the blood, especially in the earlier days of convalescence and be recovered in culture.

In this way the discrepancies in the results of different investigators may be reconciled.

In spite of the advantages possessed by the blood culture method, it has never become popular and the most widely used test at the present time is the Widal reaction. This method of diagnosis is based on the fact, that living and actively motile typhoid bacilli, if placed in the diluted serum of a patient suffering from typhoid fever, within a short time lose their motility and become aggregated into clumps.

The reaction usually begins to be observed about the seventh day of the disease, though, occasionally it has been found as early as the fifth day. At times its appearance is delayed until the third week or even later. How long the reaction persists after the end of the disease has not been fully determined. In certain grave cases where the patient is overwhelmed by the toxin the reaction may be entirely absent.

In regard to the proportion of cases of typhoid fever in which a definite reaction occurs and the time of its appearance, the New York Board of Health's figures are as follows:

In the first week of the disease 20. per cent. of the cases gave positive results. In the second week about 60. per cent. In the third week about 80. per cent., and in the fourth week about 90. per cent.

I shall not take up the time in describing all the different ways in which the test can be performed, but shall simply say that dried blood or serum can be used and the bacilli may be either living or dead.

The method with dried blood is the one in common use in city laboratories. Its only advantage lies in the ease with which the blood can be transported. The dilutions are seldom accurate and I have abandoned the method entirely. If serum is used, accurate dilutions can be made and the living bacilli may be grown in broth or an emulsion may be made of the bacilli in normal salt solution from a fresh agar culture.



I have practically given up the microscopic test and for the past year have been using formalized cultures in test tubes, that is, a macroscopic test. When living bacilli are used the culture must be fresh since the cell receptors, or at any rate the chief part of them which are concerned in the phenomenon of agglutination are easily detached from the bacteria and this separation probably takes place in all cultures which have been grown for some time. By the use of formalin this splitting off of the agglutinative receptor can be prevented. Ruediger has published tables comparing the use of formalized and fresh living bacilli, with results slightly in favor of the former.

The method I have been using was published by Dreyer in the *Journal of Pathology and Bacteriology*, Vol. 13, and consists of a veal-peptone-bouillon typhoid culture to which has been added 0.1 per cent. of formalin.

Such a preparation has the following advantages: It is absolutely sterile; it is as sensitive to agglutination as the same culture when living; it can be kept unchanged for six months or a year; it renders possible the production of a standard culture of constant agglutinability.

The test is made in dilutions of 1-25, 1-50, 1-125, 1-250 and a control tube which contains no serum. These tubes are placed in the incubator for two hours at 37°C and if the reaction is positive a light, flocculent deposit will collect at the bottom of one or more of the tubes and the control tube will remain diffusely turbid. A positive result with a dilution of 1-25 is looked upon as doubtful, but if agglutination occurs at 1-50 or higher it is regarded as definitely diagnostic of typhoid fever. Formalized cultures of the paratyphoid bacillus and colon bacillus may be prepared and used in the same manner.

A further advantage in the use of serum is that the bacilli can often be isolated from the clot which remains after the serum has been used in making the Widal test. Fornet's method is to plant the clot in 5 cc of sterile

ox-bile and incubate the mixture for twelve hours and then make transfers to agar slants or blood serum.

In regard to some of the cases of typhoid fever in which the Widal fails to act. Many of the failures are due to making the test too early and not repeating it. Some are due to using only one dilution, say 1-25, when if higher dilutions had been used the result might have been positive.

The Widal is sometimes delayed until the third or fourth week, or may not appear until convalescence is established. Certain grave cases where the patient is overwhelmed by the toxin fail to give the reaction. Some of the negative results are due to the fact that the case is really one of paratyphoid fever. Wells says that systematic blood cultures in Chicago show that about 10 per cent. of so-called typhoids in that city are really paratyphoids. Kolle estimates the proportion in Germany at about the same. Most of these cases are of the paratyphoid B. type.

#### *The Leucocyte Count.*

The leucocytes are generally subnormal during the whole course of the disease and gradually diminish from the first to the fifth week at which time the average of Emerson's cases was 5,386. Some cases may reach 2,000 or even 1,000 cells per cubic millimeter. Thayer found no cases with an initial leucocytosis. The longer and more intense the infection the lower the leucocyte count. Occasionally cases will run 10,000 or more leucocytes throughout the disease, without any complication.

In regard to the differential count Thayer's observations are as follows: A steady diminution in the polymorphonuclear leucocytes, the lowest point being reached at the end of the pyrexia. This is an absolute diminution. A relative increase in the lymphocytes, especially the larger forms. A reduction (relative and absolute) of the eosinophile cells during the pyrexia followed by an increase in convalescence, which may amount to a considerable eosinophilia.

During convalescence the count returns slowly to normal, but the blood retains its characteristic features for about three weeks after the temperature is normal. Inflammatory complications are accompanied by a rise or even a true leucocytosis.

#### *The Diazo Reaction.*

The reaction may appear as early as the third day of the disease and is strong evidence in favor of typhoid fever. There seems to be no relation between the intensity of the reaction and the intensity of the infection. The greatest value of the test is said to lie in prognosis, for if it disappears or becomes less marked after the second week, a favorable result may be expected. There is a great diversity of opinion as regards the actual value of the test and the drugs which may interfere with it. From my own experience I place very little reliance on it.

#### *Typhoid Bacilluria.*

The typhoid bacilli can be isolated from the urine in about 25. per cent. of the cases and often early in the disease, but this percentage of favorable results is hardly sufficient to warrant the method being used very extensively. Connell gives a series of 621 cases of typhoid fever with 24. per cent. having typhoid bacilli in the urine. The finding of the organisms in the urine has been more constant in relation to the temperature curve than to the day of the disease. They are usually present in enormous numbers and appear from one week before to two weeks after the temperature has reached normal, most commonly within a few days of the first day of normal temperature. They persist in the urine for several weeks and disappear spontaneously in most instances. The bacilluria is seen in severe cases, particularly the complicated and relapsing types and the organisms are as toxic to animals as those from the blood or feces. While the isolation of the bacilli from the urine is of no great value as a diagnostic measure, the recognition of the

fact that they occur in the urine is of great importance as regards the public health.

#### *Isolation of the Typhoid Bacilli from the Stools.*

The reports on this point are conflicting. Some workers have found them present in a large percentage of cases while other equally good investigators have failed to confirm these results. If instead of regarding typhoid fever as a primary intestinal infection we regard it as a primary bacteriemia which usually has secondary intestinal lesions with a secondary infection of the gall-bladder, the uncertainty of finding the organisms in the stools is easily accounted for. There is good reason to believe that the intestine and its contents form a very poor culture medium for the typhoid bacillus and it is also probable that some races of the organism are much more resistant to the hostile conditions in the intestine than are others.

An analysis of the cases in which the organisms have been recovered from the stools shows that this method of diagnosis may often be useful in early as well as in late stages of the disease, but the difficulty of the technic, together with the relative uncertainty of the results, makes the method of comparatively small value as a routine procedure. The examination of the stools is on the whole chiefly important in the recognition of chronic bacilli carriers.

Pratt, Peabody and Long in their investigations were only able to recover the organisms in 21. per cent. of the febrile cases and when present they occurred only in small numbers.

Owing to the large variety of bacteria in the intestine differential culture media must be used when isolating the typhoid bacillus. To show how complex some of these mixtures are, I will mention the latest, by Loeffler, Walter, Dibbelt and Wehrlin, which consists of a bouillon-nutrose-malachite-green agar with the addition of safranin and reinblau. On this medium the typhoid colonies are blue and the colon colonies red.



*The Typhoid Cutaneous Reaction.*

Floyd and Barker used a standard solution of highly virulent, sterile typhoid bacilli and the same technic was followed as in obtaining the cutaneous reaction in tuberculosis. Nineteen positive results were obtained in thirty known typhoid cases. Goodman and Sutter studied the reaction on seven known typhoid cases, only one of which gave a positive result. Their conclusions are that the test is valueless as a means of diagnosis.

## BIBLIOGRAPHY.

- BUXTON and VAUGHAN.—On Agglutination. *Journal of Medical Research*, vol. 12, p. 115.
- COLEMAN and BUXTON.—The Bacteriology of the Blood in Typhoid Fever, based on an analysis of 1,600 cases. *Medical Record*, March 30, 1907.
- COLEMAN and BUXTON.—The Bacteriology of the Blood in convalescence from Typhoid Fever. *Journal of Medical Research*, July, 1909.
- CONNELL, K.—Typhoid Bacilluria. *American Journal Medical Sciences*, vol. 137, p. 637.
- DREYER, GEORGES.—Widal's Reaction with sterilized cultures. *Journal of Pathology and Bacteriology*, vol. 13, p. 331.
- DUNSCHMANN.—Etudes sur la fièvre typhoïde. *Annales de l'Institut Pasteur*, January 1909.
- EPSTEIN, A. A.—Blood Cultures in Typhoid Fever. *Proc. N. Y. Path. Soc.*, February-March 1908.
- FLOYD and BARKER.—The Typhoid Cutaneous Reaction. *American Journal Medical Sciences*, August, 1909.
- GOODMAN and SUTTER.—The Cutaneous Reaction of Link in Typhoid Fever. *University Pennsylvania Medical Bulletin*, May, 1909.
- LYONS, R.—The Clot Culture in conjunction with the agglutination test in typhoid. *Archives of Internal Med.*, July, 1909.
- LOEFFLER, WALTER, DIBBELT and WEHRLIN.—Ein neues Verfahren zum Nachweise und zur Differentialdiagnose der Typhus bakterien mittels Malachitgrün-Safranin-Reinblau Nährboden. *Deutsche medizinische Wochenschrift*, 29 July, 1909.
- PRATT, PEABODY and LONG.—The occurrence of typhoid bacilli in the stools of typhoid patients. *Journal American Medical Association*, September 7, 1907.
- PEABODY, F. W.—The diagnosis of typhoid fever by cultures from the blood of the ear. *Archives of Internal Med.*, vol. 1, p. 149.
- PEABODY, F. W.—The Bacteriological Diagnosis of Typhoid Fever. *Journal American Medical Association*, September 19, 1908.

## ACUTE GONORRHEA IN THE MALE ITS DURATION AND TREATMENT.\*

By J. STURDIVANT READ, M.D.

BROOKLYN, NEW YORK

Assistant Genito-urinary Surgeon, Long Island College Hospital.

**A**MONG a number of the profession the impression still obtains that the length of time necessary for a cure, spontaneous or otherwise, of all acute uncomplicated cases of gonorrhea, is six, or at the most, eight weeks; that sandal wood oil and a small syringe comprise the necessary armamentarium, and that a cessation of discomfort and the disappearance of the meatus drop are evidences of a cure.

That patients in good physical condition, rendering honest and intelli-

gent co-operation and receiving as careful treatment as modern methods are capable of furnishing, may harbor gonococci from twelve to twenty weeks, is shown by records of six selected cases, whose urine and secretions were examined daily.

I shall not quote tedious details but report the salient facts of two cases only.

CASE I.—A. B., City Engineer. Single Age 30 years. In good general health. First infection. Ten days incubation. Treatment begun two days following appearance of pus in which the microscope demonstrated intra and extra cellular gonococci.

\* Read before the Brooklyn Medical Association

At the end of fourth week a few gonococci found.

At the end of sixth week no gonococci found, but some mucus and a few fine shreds.

At the end of seventh week, no stickiness at meatus, patient free from all subjective symptoms, fine shreds persist, on one of these two pair gonococci found.

Tenth week same condition but no gonococci found.

Eleventh week, few fine shreds in a six-hours urine. The endoscope shows one patch in the anterior urethra, the color and lack of pliability of which indicate a slight submucous infiltration. Sounds and dilatations begun.

At the end of fourteen weeks no shreds in a seven-hours urine. All treatment stopped for two weeks.

At end of sixteen weeks, eight hour urine free from all shreds and mucus. Patient discharged cured. At no period during treatment did the examination of the expressed prostatic secretion disclose any pus or gonococci.

This patient examined one year later. There were no signs of disease. A six-hours urine is clear. He reports alcoholic and sexual indulgence were followed by no symptoms.

CASE II.—C. D., Physician. General health excellent. First infection. Careful treatment for nine weeks, at the end of which time subjective symptoms have disappeared. No moisture at meatus but a few fine shreds persist in urine. Consulted me as to whether further treatment is necessary.

Urines are both clear, few fine shreds in the first.

Expression urine free from pus.

Endoscope shows one inflamed patch two inches back of meatus.

Straight sounds beginning with No. 26 F. passed every fourth day, followed by copious irrigations.

At the end of the eleventh week of the disease an examination of the drop of gleet, which generally appears the morning after treatment, disclosed four groups of gonococci.

Treatment continued. At the end of the eighteenth week one colony of gonococci found on a large mucus shred.

At the end of twenty-second week, one small, round mass of matter, pin-head in size, was noticed to fall quickly to the bottom of the morning glass of urine. The microscope showed this to contain pus cells and one clump of suspicious looking cocci. The origin of this body was probably a urethral crypt, or gland, as the prostatic secretion has never shown any pus. At the end of six months from the time of the original infection an eight-hours specimen of urine contains no shreds, and the patient discharged with orders to report back for examination in three months.

The information to be reimpresed by these two reports, is that as a rule, more than six weeks are necessary for a cure; that subjective symptoms are not a reliable guide; that microscopical examinations or a careful macroscopical examination of six to eight hours specimens of urine, will enable us to avoid the premature clinical test of alcohol or coitus, both of which, in the event of gonococci being present, are injurious.

*Treatment.*—The advances in the treatment of acute gonorrhea have been the substitution of the albuminous silver salts for any form of astringent at the beginning of the disease and the realization that the disease is partially a self-limited one; that the discharge of pus is an expression of the organism's effort to remove the offending cocci and the knowledge that causing a cessation of the pus discharge by the use of astringents no more advances a cure than does the control of a cough by opiates remove its cause.

The early employment of zinc and lead solutions by many physicians continues because under their use the discharge subsides more rapidly. The amount of pus does lessen but nearly always there results plugged glands and follicles which contain gonococci and infiltrations which become organized strictures. A brief outline of the treatment employed is as follows:

*Advice* as to the care of eyes and avoidance of carrying the contagion to others. A bland diet, no alcohol and no venery, direct or indirect.

Personally I prefer to hand patients a printed slip covering these points that neither I nor they may forget some detail.

*Rest* in this as in all acute processes is the one most important remedy and it is because of the fact that for social reasons most of these patients are ambulatory cases, that many complications occur and prolonged treatment is necessary. If at the height of the acute process patients can be persuaded to spend one or two weeks in bed, the entire course of the disease is improved. Where this cannot be



obtained at each visit emphasis should be laid on the beneficial effects of long hours of sleep, avoidances of dancing or running or long periods of standing or walking.

*Tobacco* has been reported as harmful in some cases. I have never seen any ill effects follow its moderate use.

*Internal remedies.*—By means of these we aim to keep the urine bland and sterile, a slight degree of acidity being preferable, and to impart to it qualities which will have a healing effect when passing over the inflamed urethral membrane.

Bicarbonate of soda, salol or formin (Hexamethylamintetramin, Urotropin) will do well for the former purposes, while for the latter the balsams have long had a well earned reputation.

Of all the balsams none act so well as the East Indian sandal wood oil.

While urine containing the oil has been shown to be nongonococcidal, yet under its action the painful subjective symptoms lessen and the amount of discharge diminishes. These effects are explainable by three demonstrable effects of the oil. It produces a slight local anesthesia, causes a withdrawal of lymph, probably by reason of its vaso constrictor properties and is mildly astringent in a faintly acid media from which it causes a precipitation of albumin. There are two disadvantages in its use. One, its telltale odor, the second, intestinal upset and renal disturbance.

Of late years many preparations of the oil have appeared in which attempts are made to get rid of these objectionable features while preserving its beneficial ones.

I have tried many of them; either their therapeutic action was not as good as that of the pure oil or irritating properties remained.

For the past year I have prescribed a salicylic ester of santalol, sold under the trade name of Santyl. It has no odor and in one hundred cases but two have complained of gastric disturbance. In other respects it appears as beneficial as the pure sandal wood oil.

Having medicated the inflamed membranes by means of internal remedies the question of local treatment presents itself. In the presence of intense lymphatic involvement with a great degree of sensitiveness no local treatment should be used. A mixture of kali acetatis and tincture of hyoscyamus will sometimes relieve painful micturition when other remedies fail and the bromides are useful in combating disturbing erections. The patient is ordered to bed and not until the acute condition has subsided is local treatment begun. Then the patient is instructed how to give himself hand injections, being cautioned to use no force and not more than half an ounce of fluid.

Protargol 1 to 4 grains to the ounce, freshly made in tepid water, argyrol 10 to 25 grains to the ounce and albargin  $\frac{1}{4}$  to 1 grain to the ounce are silver salts which are gonococcidal, have no astringent properties and are generally unirritating. They should be used two or three times a day and retained in the urethra five to ten minutes.

The most useful local measure is the daily irrigations of the urethra with solutions of one of the albuminous silver salts.

Albargin 1.1000, or argyrol 1.500.

By this means the urethra is thoroughly cleansed of accumulated secretions, its folds being distended and flushed with the solution, thus lessening the liability of the glands and crypts becoming chronically infested with colonies of gonococci.

The irrigations can be done with a large hand syringe or an irrigator and should be made by the physician only for a stream of water may become an instrument of damaging force in unskillful hands.

When microscopic examinations show the absence of gonococci, astringent remedies are indicated. kali permanganas, argentum nitras zinc or lead combined with resorcin or alum are all useful remedies and may be used at intervals regulated according to the reaction they cause. Under this briefly outlined method of treatment about one-third of my cases

have recovered in from six to ten weeks. There is, however, in my experience a large percentage whose urine becomes clear except for a few fine shreds in a six or eight hour specimen. In these cases stickiness at the meatus is absent and subjective symptoms have disappeared. At this stage many cases are dismissed as cured. This paper was written for the purpose of emphasizing the fact that these patients are not free from a slight submucous infiltration and frequently there are remaining gonococci in urethral glands or in the prostate.

As long as any shreds persist, whether with gonococci, or pus, or not the case should not be dismissed. If the prostate shows no involvement, the careful use of the endoscope will generally demonstrate a submucous, urethral infiltrate. This, after the twelfth week, in the absence of any excessive urethral sensitiveness or reaction should be treated with sounds and dilatations. Commence with a 26

F. straight, gradually increasing to 30 F. and then begin with anterior dilatations. Treatment should be given every four to seven days and each time followed by copious irrigations. After six weeks of this the patient should be given a rest from all instrumentation for one month. At the end of this period if a six-hour urine still contains shreds treatment should be renewed.

To summarize:

1. Careful microscopic examinations will do away with the too early employment of the beer and coitus test.

2. No case can be considered cured until all shreds have ceased appearing in a six hours urine.

3. Infiltrates around the urethral glands and in the submucous tissue should be attacked while soft. That it is safe to begin sounds and dilatations three months after the onset of the disease if the urethra is tolerant.

## LIPOMA OF THE ASCENDING COLON.

### REPORT OF A CASE.

By RICHARD WARD WESTBROOK, M.D.

**B**ENIGN tumors originating in the stomach or intestines are comparatively rare. Submucous lipomas of the stomach and intestines are probably not so uncommon as usually supposed, but are rarely of sufficiently large size to produce symptoms marked enough to call for surgical interference. Stetten, of New York, in an excellent paper has recently compiled seventy-seven cases from the literature. More than half these cases occurred, about equally in the two sexes, in individuals between 40 and 60 years of age, the period of life where lipomata in other parts are most common, and in which increased activity in adipose tissue-growth occurs. Less than half the cases occurred in stomach and small intestine, and rather more than half in the large intestine and rectum.

These tumors are true, circumscribed lipomata, with no tendency to malignant degeneration. They originate in the connective tissue of the submucous layer, and as they project into the lumen of the bowel may be more or less pedunculated, or sessile, at their attachments. They probably exist for years, and the majority of the cases reported produced symptoms over long periods.

Chronic intestinal symptoms are most common, such as colicky pain, which may be localized over the seat of the growth, and there may be local tenderness on pressure. Constipation is common, and may alternate with diarrhœa, especially where the site of the tumor is in the colon. If the growth becomes ulcerated, the local tenderness may increase, and there may be fever, and possibly blood in



the stools. Flatulence is common, and loss of weight may be present. Intestinal obstruction, chiefly through the intussusception which the growth tends to produce, may occur. Growths in the colon, and even in the ileum, have appeared at the anus in some cases, through invagination.

The middle-age of the patient and the presence of a palpable growth, especially if combined with weight-loss, are very suggestive of malignant disease of the bowel. Free mobility of the tumor and long duration of symptoms with comparatively good nutrition on the part of the patient should militate against malignancy.

The treatment should be incision of the bowel-wall and removal of the growth by enucleation or ligation of the pedicle. Excision of the bowel should be avoided if malignancy can be excluded after the abdomen is opened by the mobility of the growth within the wall of the bowel, the lack of infiltration of the bowel-wall, and the lack of marked glandular enlargement.

My own case was as follows:

Mrs. M—, aged 34, never pregnant, health generally good until a year ago. At that time had for weeks attacks of cramping pain, chiefly referred to upper abdomen, combined with symptoms supposed to originate in the stomach. She was attended by a Manhattan physician, who treated her with stomach washings. She had the impression that she suffered from neuralgia of the stomach. She, however, became much improved, but her symptoms did not entirely leave her.

A month previous to my seeing her, she gradually developed severe cramping pain in the abdomen, which apparently originated in the right side and traveled toward the middle line. Appendicitis was suggested to her by one physician. She was finally seen by the physician who referred her to me who recognized a movable mass. When I saw her she would at times double over with the pain; the bowels were loose, although they had previously been constipated; there was no nausea; flatulence was very marked and her clothing had to be worn very loosely. The cramping pain was less when she remained lying down. She had lost some eight or ten pounds in weight,

but was not anemic, and in fair general condition.

Examination of the abdomen revealed moderate distention, and a mass could be felt about the size of a lemon to the right and on a level with the umbilicus. It was quite tense on pressure, and as she lay upon her left side, it would move even beyond the umbilicus to the left of the middle line. The diagnosis of tumor of the colon was made, and malignancy strongly suspected, as I had also seen very mobile malignant tumors of the ascending colon before infiltration had become marked.

Operation was performed June 7, 1909, and was done through a four-inch right rectus abdominal incision. With the rubber glove it was difficult to grasp the movable mass, which when delivered was found to be dilated ascending colon enclosing an egg-shaped tumor, located two inches above the caecum. While it did not seem altogether like a malignant growth, the wall of the colon was considerably thickened and inflamed, and there were many enlarged glands in the mesentery. I decided that the excision of the caecum and ascending colon was the safer course, not caring to incise the bowel wall for diagnostic purposes, with the attending risks of infecting the operative field. The ileum was divided at the ileo-caecal valve, the caecum and ascending colon cut away, and the ileum and transverse colon anastomosed laterally with clamp and suture. A cigarette drain was left in the wound as a precaution against infection from leakage. The patient made an uneventful and rapid recovery. She has had no abdominal symptoms of any kind during the four months that have elapsed since operation beyond some flatulency and gurgling; and the bowels move usually once daily, occasionally twice, with stools of normal consistency. Her diet is generous, she has gained some eight pounds in weight, and as she expresses it, she "never felt so well in her life." The excision of her ileo-caecal valve and caecum, and the considerable anastomotic opening (about  $1\frac{1}{4}$  inch) left between her ileum and transverse colon have made no change from the normal, as far as the patient perceives, in the workings of her digestive tract.

The specimen presented herewith shows a lipoma of the shape and size of a hen's egg, springing from the mesenteric border of the bowel, its attachment being a good sized pedicle, nearly half the length of the tumor. The mucosa, when fresh, showed a considerable area of ulceration, evidently accounting for the extensive enlargement of the mesenteric glands. On cutting through the mucosa, the tumor is seen to consist practically entirely of fat.

## LONG ISLAND MEDICAL JOURNAL

A Forum for the Discussion of all Topics involving the Medical Profession and especially that of Long Island.

EDITOR-IN-CHIEF

PAUL MONROE PILCHER, A.M., M.D.

ASSOCIATE EDITOR

JAMES MCFARLANE WINFIELD, M.D.

EDITORIAL OFFICE:

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Further Information on advertising page 3

FEBRUARY, 1910.

### THE DISCOVERY OF ETHER AS AN ANESTHETIC.

IN a recent issue of this journal the writer discussed the celebration of "Ether Day at the Massachusetts General Hospital." It was stated that "the first practical demonstration of the use of ether as an anesthetic was made by Morton in October, 1846, but the controversy between Charles T. Jackson and Mr. Morton left us undecided concerning their respective shares in this event." Soon after the appearance of this editorial the writer received a letter from William J. Morton, the son of Dr. William Morton, in which he states that the impression conveyed from the editorial was that Jackson's share in the discovery was about equal with that of Morton. There also appeared a quotation from the address of Dr. Welsh, and Dr. Morton believes that a wrong impression was created by not completing the quotation of Dr. Welsh. This is as follows: "In the conflict of testimony there is not likely ever to be entire agreement of opinion concerning the exact measure of Morton's indebtedness to Jackson, but assigning to it all possible weight," and remembering

Humphrey Davy had suggested the use of nitrous oxide for surgical anesthesia in 1799, and that enough was already known of the anesthetic properties of both ether and nitrous oxide to have led Long, in 1842, to apply the former, and Wells in 1844, the latter to painless surgery with a considerable measure of success, it seems to me clear that the chief glory belongs not to Jackson's experience of 1842, or his thought or suggestion, whatever these may have been, but to Morton's deed in demonstrating publicly and convincingly the applicability of anesthetic inhalation to surgical purposes, and under such fortunate circumstances that the knowledge became, as quickly as it could be carried, the blessed possession of the whole world."

Dr. John Ashhurst, Jr., of Philadelphia, who made an Ether Day address in Boston recently, referring to the experiences of Sir Humphrey Davy, Horace Wells, Beddoes, Pearson, Thornton, and Warren, speaking of sulphuric ether, says: "Its intoxicating qualities when inhaled, and its power when in sufficient concentration, to produce stupefaction, had been recognized in 1839, in Pereira's well-known treatise on *Materia Medica*, and were quite familiar to American medical students; and it is no doubt possible—I certainly have no wish to deny it—that in isolated cases it may have been used as a means of relieving pain by individual practitioners, as by Dr. Long, of Athens, Georgia. But yet surgeons went on, in every country, cutting and burning, and patients went on writhing and screaming, until on the six-



teenth day of October, in the year 1846, in the Massachusetts General Hospital, Dr. John C. Warren painlessly removed a tumor from a man who had previously been etherized by Dr. William T. Morton, and Surgical Anesthesia became the priceless heritage of the civilized world." We should therefore recognize Morton as the demonstrator of the usefulness of ether anesthesia, but not the discoverer of its possibilities.

### MEDICAL SCHOOL INSPECTION.

**A**N article on this subject appeared in our December issue in which Dr. Shipley indulges in certain interesting statistics derived from the inspection of the school children of Greater New York. These figures give one the impression that most of our children are physical defects, and that the race is deteriorating in a most astonishing way. A study of these figures shows that the items of greatest frequency are defective vision, defective nasal breathing, hypertrophied tonsils, malnutrition and defective teeth. The figures, however, are of little value without a definition as to how they are obtained and what is meant by defective nasal breathing, enlarged tonsils, etc. The author claims that "the examinations of the inspectors are fairly accurate." He adds, however: "In a certain proportion of cases there is a legitimate difference of opinion." A defect is defined as "a condition that can be remedied or improved by medical, surgical, hygienic or other treatment."

We will not question the competency of the inspectors, and must

make due allowance for some immaturity of judgment in the young men who are appointed to make these examinations. It would be interesting to know, however, how many of the cases there are in which "there is a legitimate difference of opinion," especially in the cases which are reported as enlarged tonsils, a class of cases in which no sharp distinction is made in these examinations between temporarily and permanently enlarged tonsils. The same remark will apply with equal force to defective nasal breathing. Experience bears out the statement that a slight exposure to inclement weather, indiscretions in diet, etc., often produce temporary enlargement of the tonsils and difficult or defective nasal breathing. In certain atmospheric conditions such "colds" are very prevalent. How many such cases are included in the 86,700 cases of hypertrophied tonsils and the 73,050 cases of defective nasal breathing? Again, what degree of enlargement of tonsils should warrant the inclusion of a case in the list "defects?" Judging from the results of personal observation, we must assume that any enlargement, however insignificant, whether temporary or permanent, is regarded by the inspectors as sufficient to stamp the child as a defect. If, as some of the inspectors allege, they have been criticised by their superiors for not finding more cases of enlarged tonsils and adenoid vegetations in certain schools, we can readily see that the number of cases in which there is a legitimate difference of opinion must be a very large proportion of the cases reported.

It would be interesting to know

by what test, or by what standard the question of malnutrition is determined. It is well known that cases of malnutrition are very common in the families of the wealthy, as well as among the poor. Perhaps the cause may not be the same, but the fact remains. In the casual and hurried examination usually made in the schools, how much allowance is made for family characteristics, which so greatly influence the appearance of children? Of what value can statistics have which are obtained under such conditions, unless we know the standard by which they are measured? We are left to only surmise their value. Among the defects of our children, the most important in point of numbers is defective teeth. It is discovered by these statistics that over 56 per cent. of children shed their deciduous teeth, many of which become carious. That discovery, more than any other fact, warrants the statement that has frequently been made that 90 per cent. of our school children are defectives, or are in some way abnormal. Such statements would be at first startling and then amusing if they did not emanate from our excellent Health Department. In publishing such statements to the general public, fairness demands that the methods and standards used in making them up should also be made to the same audience.

No one can deny that the medical inspection of school children is a very important work and will do

much good. But there can be no legitimate difference of opinion about the wisdom of distorting the facts by misleading figures. The citizens of New York do not pay a half-million of dollars for this work with any such purpose in mind.

E. H. BARTLEY.

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#### FERDINAND C. VALENTINE.

**D**R. FERDINAND C. VALENTINE was a resident of Belle Harbor, Long Island, having his office in New York City, at 171 West 71st Street. He died at his home on Tuesday, December 14th, after a short illness. Dr. Valentine was a native of Missouri and was graduated from the Missouri Medical College in 1876. Soon after his graduation, he came to New York and established himself in practice. He was a member of the Medical Society of the County of New York for some years. He had been a member of the Queens-Nassau Medical Society since 1906, and of the Associated Physicians of Long Island since 1907. He was also a member of the American Medical Association and of several foreign medical organizations. Dr. Valentine was affiliated with Kane Lodge, No. 454, F. and A. M., of Rockaway Park, L. I., and the services of the order were held by that organization at his funeral on Wednesday, the 15th of December. The doctor's age was about fifty-six.



## MEDICAL NEWS.

Edited by JAMES M. WINFIELD, M.D.

### **Kings County Medical Society—**

At the annual meeting held January the 18th, the following officers were elected: President, John C. Mac-Evitt; Vice-President, John O. Polak; Secretary, Henry G. Webster; Associate Secretary, William A. Jewett; Treasurer, John R. Stivers; Associate Treasurer, Henry M. Mills, Directing Librarian, James M. Winfield; Censors, Albert M. Judd, J. Richard Kevin, Warren S. Simmons, Dudley D. Roberts, Ralph H. Pomeroy; Trustee, Joshua M. Van Cott.

### **Long Island Medical Society—**

At the annual meeting of the Long Island Medical Society, the following officers were elected: President, Lefferts A. McClelland; Vice-President, C. E. Lack; Treasurer, T. C. Guenther; Secretary, C. E. Scofield; Trustees, John E. Jennings; Le Grand Kerr, F. C. Holden.

### **Williamsburg Medical Society—**

At the annual meeting of the Williamsburg Medical Society, held December 15, 1909, the following officers were elected: President, Dr. Joseph Merzbach; First Vice President, Dr. S. R. Blatteis; Second Vice-President, Dr. Adolph Bonner; Secretary, Dr. Alexander Spingarn; Treasurer, Dr. M. J. Levitt.

### **Associated Physicians of Long Island—**

At the twelfth annual meeting of the Associated Physicians of Long Island, Dr. Henry H. Morton, of Brooklyn, presented a paper on "The Surgical Treatment of Gonorrhœal Epididimetitis with Report of Cases," and Dr. Harvey Cushing, of Baltimore, gave an illustrated lecture on "Intercranial Tumors." The scientific session was followed by a banquet in the evening at the Assembly. The guest of honor was Major General Wood, an honorary member of the Association.

After the banquet the guests were entertained by vaudeville.

### **Caledonian Medical Society—**

There was recently organized in Brooklyn a Medical Society whose members are either Scotchmen or of Scotch descent. The Society has had a number of monthly meetings and is in a flourishing condition.

### **Greek Letter Societies—**

The Long Island Medical College is fortunate in having two Greek letter societies, the Alpha Kappa Kappa and the Chi Zeta Chi. The Alpha Kappa Kappa is the oldest medical Greek letter society, and Zeta Chapter of the Long Island Medical College is one of the oldest in the organization.

This chapter is composed of a very enthusiastic body of undergraduates and honorary members, and they hope to erect a chapter house in the near future.

This fraternity gave its annual dance at the Pouch Mansion, January 21, 1910.

Chi Chapter of the Chi Zeta Chi fraternity have recently established chapter rooms at 198 Warren Street, Brooklyn.

### **Caledonian Hospital Society—**

Less than one year ago the Women's Auxiliary of the Caledonian Hospital Society was organized, its object being to try to raise money to build a Scottish hospital in Manhattan or Brooklyn. Through its efforts a Scottish bazar was recently held in the Masonic Temple, which netted almost seven thousand dollars.

### **South Shore Hospital Association**

—Mrs. Oliver H. P. Belmont has given a large automobile to the South Shore Hospital Association. The machine cost about \$17,000. The body is being changed so that when completed it will be a thoroughly up-to-date automobile ambulance with every improvement.

The first of the hospitals which

Mrs. Belmont is to build on Long Island is at Hempstead, and is now fast nearing completion and will be finished in a few weeks.

Mrs. Belmont hopes to have the building in readiness for use by early spring.

The hospital will be opened with appropriate ceremonies. The present temporary hospital at Freeport will then be discontinued. Mrs. Belmont hopes to establish a series of hospitals at various points on the island, extending from Jamaica to Montauk Point on both sides of the island.

**German Hospital of Brooklyn—**Celebrated its tenth anniversary with a banquet at the Bushwick Club, January 12, 1910.

**German Hospital Dispensary—**The dispensary staff is as follows: Dr. George Burkhardt, Gynecologist; Dr. Otto Niedner, Internal Medicine; Drs. Carl Fulda and Royal Fowler, Surgeons; Dr. Robert Morehead, Laryngologist; Dr. Charles Meuller, Ophthalmologist, and Drs. Henry F. Adams and H. B. Myers, Roentgenologists.

While the dispensary staff is to be in charge of all patients applying for medical aid, the staff, however, is to be under the jurisdiction of the regular hospital medical staff. The dispensary is to be open every day from 1 until 3 o'clock in the afternoon. It is located in the basement of the hospital and the entrance is to be on the Stanhope Street side.

The dispensary consists of a very large waiting room and two rooms for the treatment of the patients. The dispensary has been considered a need for that section of the city for many years, and will give free aid to all those who are not able to pay for treatment when this fact is certified to by a practicing physician. Letters of physicians are to be kept on record for further reference.

**To Relieve State Hospitals—**In order to relieve the congestion of the state hospitals for the insane

near New York City, the State Lunacy Commission purposes to erect seven large cottages, each capable of housing 200 patients. Six of these cottages will be erected in connection with the Long Island Hospital, three at Central Islip and three at Kings Park; the other one will be on Wards Island. These buildings will cost about \$750,000.

**St. Catherine's Hospital—**At the annual election the following officers were elected: President, Dr. Valentine J. Klein; Vice-President, Dr. William Moitrier; Secretary and Treasurer, Dr. Morris Enright; Executive Member, Dr. James C. Kennedy.

**St. Anthony's Hospital—**Plans have been filed for a new building to be erected in Woodhaven. The hospital is to cost about five hundred thousand dollars.

**New York Health Department—**Health Commissioner E. J. Lederle announces that he will be at the Brooklyn office of the Department of Health every Tuesday, Thursday and Saturday from 10:30 to 12:30 o'clock. The announcement came as a surprise, as the present Commissioner's predecessor, Dr. Thomas Darlington, completely ignored this borough and rarely, if ever, visited the local headquarters. He had no office hours here, and anyone who wanted to see him had to go to the Manhattan office.

During his Brooklyn office hours, Dr. Lederle will meet all persons in this borough who have any matter of interest to the department to present.

**New Standard Certificate of Death.**—Beginning with January 1, the New York State Department of Health requires the use of the recently-revised United States Standard Certificate of Death. The form has been approved by the United States Census Bureau and the American Public Health Association. The uniform adoption of this



certificate will greatly facilitate the study and comparison of mortality statistics.

**The Long Island Chronicle**—The JOURNAL extends friendly greeting to the Long Island College Hospital *Chronicle* which is published under the auspices of the students of the Long Island Medical College, and is a magazine devoted to the interests of the students and alumni of the Hospital. Its editor-in-chief is William G. Siegel, and his associates are taken from the freshmen, sophomore and junior classes.

The first number appeared in November, the second in January, the articles are of varied character; for instance in the first number we note one by Prof. J. M. Van Cott on the "Advantages of the County Medical Society," and in the last number is a very able article by our old friend Dr. Joseph H. Hunt, on "How Esculapius Came to Rome."

If the publication keeps to the standard of its first numbers, it will redound to the glory of its originators, and be of great benefit to the institutes from which it emanates.

**Annals of Surgery**—This celebrated publication completed its fiftieth volume with the December number. The event was commemorated by an edition of over 400 pages. The articles were from the pens of many surgeons of many different countries.

**St. James, Long Island**, feels itself superior to any other Long Island town, because within its precincts is the summer home of the Mayor of New York City and one of the City Judges, Justice Smith.

**Long Island Physicians**—There was a fair attendance of Brooklyn and Long Island physicians at the meeting of the New York State Society. Dr. Richard W. Westbrook, of Brooklyn, read a paper on "Surgical Considerations of Acute Diffuse Phlegmonus Gastritis." Dr. A. T. Bristow, of Brooklyn, on "Vaccine Therapy With the Report

of a Case of Human Glanders." Dr. Joseph Merzbach, of Brooklyn, read on "The Relationship Between the State Board of Regents and Training Schools."

There was also a demonstration of the Wasserman and allied reactions, by the Hoagland Laboratory Staff.

**A Pedi Cure Clinic**—A chiropodists' clinic, free to the poor, has been established in New York City; this institution is the first of the kind in the world.

**The Metropolitan Life Insurance Company** has issued a pamphlet, entitled "A War Upon Consumption," to be distributed among the policy holders. The pamphlet gives in a simple and concise form the facts concerning tuberculosis.

**Physicians' Office Building**—The new building, located at 67 Hanson Place, Brooklyn, which has been designed as a physician's office building, is now completed and ready for occupancy. It has a frontage of 90 feet on Hanson Place. The design is of a broad, simple, Colonial type. The façades have an atmosphere of dignity and repose and a character quite distinctly their own.

The first story is constructed of heavily rusticated limestone, the upper six stories of Harvard brick, laid in old Flemish bond with belt courses, cornices, etc., of limestone. The principal façade on Hanson Place is strongly marked by a columned entrance portico placed on the center axis.

The interior of the building is so designed as to contain complete suites of two, three, and four rooms, including private entrance vestibules, reception rooms, offices, retiring rooms, laboratories, toilets, etc., connected by private corridors.

The architect has made a special study of the construction with a desire to meet the requirements of a building occupied by physicians. The partitions, floors, communicating doors,

etc., are designed to be as nearly sound-proof as possible. The floors and bases of all offices, laboratories and toilets are constructed of one piece of water-tight and germ-proof material. The steam radiators are attached to the walls above the floors, leaving all floor spaces absolutely free from obstructions. A large number of electric outlets are provided, also special ventilation for laboratories.

A large portion of the first floor is devoted to a spacious general reception hall elaborately designed in the style of the Italian renaissance of the fifteenth century, executed in Caen stone. The reception room opens off the reception hall; from this starts the marble and bronze staircase forming a part of the fireproof staircases to the upper stories.

The building is equipped with a high-speed Otis elevator opening into the main reception hall and the public halls of the upper stories.

### SOCIETY ELECTIONS.

**Medical Society of the State of New York**—At the one hundredth and fourth annual meeting of the Medical Society of the State of New York the following officers were elected: President, Dr. Charles Jewett, of Brooklyn; Secretary, Dr. Wisner Townsend, of New York; Treasurer, Dr. Alex. Lambert, of New York.

**Associated Physicians of Long Island**—At the twelfth annual meeting of the Associated Physicians of Long Island, held January 29, 1910, the following officers were elected: President, Thomas R. French, of Brooklyn; First Vice-President, Frank Overton, of Patchogue; Second Vice-President, William B. Brinsmade, of Brooklyn; Third Vice-President, George K. Meynen,

of Jamaica; Secretary, James C. Hancock, of Brooklyn; Treasurer, Charles B. Bacon, of Brooklyn.

### PERSONALS.

**Dr. and Mrs. Arthur C. Brush** sailed on the *Arabic*, January 19th, for a three months' trip through Egypt and the Holy Land.

**Dr. John Alva McCorkle and Dr. George McNaughton** sailed on the *Carmania*, January 22nd, for a four months' trip through Egypt and Southern Europe.

**Dr. Arthur H. Bogart** announces his change of address to 27 Seventh Avenue.

**The Emperor of Germany** has bestowed the Order of the Prussian Crown on Dr. Otto G. T. Kilian and the medal and ribbon of the Order of the Red Eagle on Drs. Rudolph C. Denig and Louis Peiser, of the staff of German Hospital, New York.

### DEATHS.

**Dr. Stewart Church**, a retired physician, died early January 12th at his residence, 236 Clinton Street, Brooklyn. He was in his sixty-fourth year. Dr. Church was born in Brooklyn, the son of the late Robert Church and Liza Stewart Church, and was a graduate of Columbia College and the College of Physicians and Surgeons. He was married to Miss Nevins in 1870. He is survived by his wife and one brother.

**Dr. Alfred M. Spalding**, of New York, died at Speonk, Long Island, December 20, 1909.

**Dr. Irving Frasse**, formerly of Brooklyn, died at Monterey, Cal., December 6, 1909.



# TRANSACTIONS OF THE BROOKLYN SURGICAL SOCIETY

*Regular Meeting, November, 1909.*

## ADENOMA OF THE DESCENDING COLON.

DR. RUSSELL FOWLER reported the following case:

A. G., male, aged 43, was seen by me in consultation with Dr. Fisher, September 7, 1909. He gave a history of having been well except for constipation up to twenty months before. He then began to suffer with severe constipation accompanied with severe cramp-like pain in the left lumbar region radiating to the umbilicus; he had repeated attacks of hiccough; his stools were at times blood stained; he had lost forty pounds, was emaciated and suffered from night sweats; his appearance was somewhat cachectic. Examination revealed a movable tumor the size of an egg, irregular in shape, intraabdominal, and to the outer side of the left rectus muscle at the level of the umbilicus. This was taken to be a malignant tumor of the descending colon. The patient had also a mitral regurgitation. He was admitted to the German Hospital September 8th, and operated on September 9, 1909. A five-inch left rectus laparotomy confirmed the diagnosis. The growth was found to involve the descending colon two inches below the splenic flexure. There was some glandular involvement of the mesentery close to the tumor. A resection of some six inches of the descending colon was made and anastomosis by suture performed. The abdominal wound was closed without drainage. The after course was uneventful except for a wound infection noticed on the third day. The wound was opened for 1½ inches and about an ounce of pus evacuated. After the third day the bowels moved naturally daily. The patient regained his strength slowly and was discharged from the hospital October

10th, with a superficial granulating area. The Pathologist's report showed the tumor to be a malignant adenoma.

## SIMPLE SEROUS CYST OF THE KIDNEY.

DR. RUSSELL S. FOWLER, reported the following case:

E. M., female, married, aged 53 years, was referred to me November 6, 1909, by her physician, Dr. Horace Sloat. History: typhoid and pneumonia fifteen years ago; an occasional attack of rheumatism; there are gouty deposits in the joints of the fingers. The patient says her mother has similar gouty trouble. The large toe of the right foot shows a gouty deposit. Eight years ago she suffered from nervous prostration for six months. For the past ten years there has been some difficulty in urination. There has been no blood, or burning or pain with urination, but at times marked frequency, ten or fifteen times a day; at other times urination has been normal. There have been severe headaches with attacks of vertigo and specks before the eyes for the past three years. There has been pain in the back, more marked on the left side, especially when changing from one position to another. The patient says she feels something move in the left side. For the past four months she has tried to wear a corset for movable kidney, but the pain has been so greatly increased by the pressure of the corset that she has had to give up its use. The patient is a slight built woman; there has been no loss of weight. Examination shows a movable left kidney at present lying in the pelvis. The kidney cannot be replaced in its proper position. It is tender and seems larger than a normal kidney. There is no history of injury and no



SIMPLE SEROUS CYST OF THE KIDNEY.



history of a passage of a large quantity of urine following relief from pain. Diagnosis: Movable left kidney with possible tumor. I operated upon the case at the German Hospital, November 9, 1909. A Kocher incision disclosed a freely movable kidney which was easily delivered through the

phied by pressure of the cyst, and because of the impossibility of enucleating the cyst without removing at least two-thirds of the remaining kidney structure, a nephrectomy was performed. The wound was closed without drainage, and the subsequent course has been uneventful, dressing



CASE OF RHINOPHYMA.

wound. The kidney was small, about one-third of the kidney substance being replaced by a cyst the size of a large orange. The ureter was somewhat smaller than normal, the pelvis of normal size. The renal vessels presented an anomaly, one set of vessels going to the lower pole of the kidney and another set going to the upper pole. These vessels were also of extremely small size. For this reason and by reason of the fact that a large part of the kidney structure was atro-

phied by pressure of the cyst, and because of the impossibility of enucleating the cyst without removing at least two-thirds of the remaining kidney structure, a nephrectomy was performed. The wound was closed without drainage, and the subsequent course has been uneventful, dressing

on the seventh day showing primary union. Examination of the specimen shows the following: A kidney two-thirds the normal size with anomalous blood vessels as above described and with a cyst occupying part of the lower third and part of the middle third of the kidney, and in relation to, but not communicating with, the renal pelvis. The contents of the cyst were removed and analyzed for urea, of which no trace was found. The cyst content is clear

serous fluid with very few blood cells and a trace of albumen. The blood cells are probably due to handling in the removal of the kidney. In the cyst covering were several small blood vessels converging to and anastomosing with the convexity of the cyst. The renal pelvis was distended with fluid to see if there was any communica-

#### CASE OF RHINOPHYMA.

DR. RUSSELL S. FOWLER, presented the patient, and said:

This patient, Mr. F. S., aged 66 years, was operated on by me at the German Hospital, October 14, 1909. His condition before the operation is



CASE OF RHINOPHYMA AFTER OPERATION.

tion between it and the cyst cavity. No such communication existed. Absence of such communication is also shown by the absence of urea in the cyst contents. The lining of the cyst is smooth, tough and intimately adherent with the kidney cortex; the cortex of the kidney in relation with the cyst is thinned out. The fibrous capsule over the most prominent part of the cyst posteriorly is intimately connected with the cyst lining forming apparently one thick, tough membrane with it.

shown by the accompanying photograph. Four months before I saw him he noticed a pimple on the right side of the nose and a few weeks later one on the left side. These grew larger and the entire nose became thickened as shown in the picture. The operation consisted in removing the larger growths and undermining the skin in such a manner as to restore the contour of the nose. The result is shown in the photograph representing his present condition.



**SYPHILITIS ORCHITIS.**

DR. FREDERICK C. PAFFARD reported the following cases: Patient aged 43. Had chancre fifteen years ago, followed by secondary symptoms. Did not follow up treatment. Five years ago had gonorrhea. No epididymitis. One and a half years ago noticed increase in size of left testis; no pain. This increased to size of orange; some hydrocele present. Antisymphilitic treatment has reduced testis to size of apple. Apparently fibrous connective tissue has replaced parenchyma of gland. Organ practically useless, so will be removed.

**FLAP SKIN GRAFTING.**

One child three years, the other five. Both operated for cicatricial contraction following burns of the elbow, the flexor surface. The cicatrix was dissected off. Rectangular flaps, amply sufficient to repair defects, were taken from the side of the child. The base of the flaps were left attached to the chest.

The flaps were attached to the raw surface of the forearm and arm by a few sutures. A fixation dressing was applied. On the ninth day the attached edge of the flaps were cut through and then sutured to the arm. The functional results were very good.

**CHOLELITHIASIS.**

DR. GEORGE I. MILLER reported the following case: Mrs. N., a married woman, 25 years of age, was referred to me by Dr. Kurzweil, of Manhattan.

*History.*—Her family history was negative. She had sustained the ordinary diseases of childhood. Menstruation appeared at the age of 16 and was always regular and painless. She was married at the age of 20; had two normal labors. Her last child was born 15 months ago. No miscarriage. Had no typhoid fever. Had always lived a simple life and dressed in plain clothes and fashion. Tight lacing she never indulged in; was not of a sedentary habit. She was always careful with her diet, because she suffered a great deal of flatulence

and tenderness at the pit of the stomach.

During the past two years she has had repeated attacks of pain in the epigastrium which radiated toward the gall bladder. These attacks would last from one to two hours and occurred from one to six times a year.

These sudden attacks of pain occurred mostly at night and were considered gastro-intestinal disturbances due to indigestible food and lack of digestive power. She was never jaundiced.

Three months ago she had a severe attack of pain in the right hypochondrium. The pain was excruciating in character for about three hours and the patient remained in bed for about a week.

The urine was very dark in color; the stools were not observed.

She has had three similar attacks. Three weeks ago she had an attack which lasted about a week. Patient never vomited; never had chills or felt feverish, nor did she ever suffer from pruritis.

*Physical Examination.*—The patient was fairly well nourished; tongue was clear; complexion good; appetite fair. Bowels moved regularly except during attacks, when she was constipated.

Temperature normal, pulse regular; heart, lungs and kidneys normal.

There was dulness over the epigastrium and right upper abdomen.

There was no rigidity or tenderness anywhere and the abdominal wall felt flabby.

*Urine Examination.*—Negative.

*Diagnosis.*—Gall stones.

*Operation.*—An incision was made through the edge of the right rectus abdominus muscle reaching from a point even with the umbilicus three inches upwards. There was a considerable quantity of serous fluid present in the peritoneal cavity.

No internal adhesions were present, though the serous membrane was injected. The gall bladder formed a cyst the size of a large fist, tense, full of stones and tarry fluid. After aspirating some of the fluid, I incised the bladder and removed 265 gall

stones varying in size from a rice seed to that of a hazel nut.

The stones are strongly faceted and have evidently been exposed to friction for a long time. One of the larger stones was low down in the cystic duct. By inserting a dressing forceps and dilating the biliary duct, pressing the duct between thumb and index finger, it was possible to shove the stone back into the gall bladder and remove it. I introduced a rubber tube and stitched it to the edge of the bladder and then reinforced it by a purse string inversion. The distal end was later submerged in a disinfecting solution.

The appendix was examined and found normal.

The patient reacted well after operation. Drainage of bile was profuse and required change of superficial dressings at frequent intervals. The patient made a normal recovery, leaving the hospital four weeks from the date of operation.

Our pathologist reports that on section, the stones consist of a yellowish crystalline substance which radiates from the center in concentric lines. Chemically its composition is exclusively cholestrin. Culture of fluid from the gall bladder showed streptococcus pyogenes.

*Remarks.*—In reporting this case of gall stones, I can add very little to the knowledge of this malady, except to help bear out the fact that the number of stones in a bladder has no relation to the gravity of the symptoms produced. In a number of cases of

cholelithiasis which I have operated and in which there were no stones at all or a limited number of them, the symptoms were in excess as compared to the one I report.

To find 265 stones in a gall bladder is not a novelty, since there are cases on record which makes my patient a reformed descendant of others.

When calculi are small they are usually very numerous. In one case over two thousand were removed.

Mayo Robson has reported a case in which 728 gall stones were removed from the gall bladder and dilated duct of a woman aged 54.

Dr. Peters (*Annual Cyclopaedia of Medicine*, Vol II, page 185), has witnessed a case in which 563 gall stones were removed from a distended gall bladder.

The sudden onset, two or three hours after a meal, of violent, spasmodic paroxysmal pains over the hepatic and epigastric region does not depend so much upon the size and number of the stones as upon its shape. A small calculus with sharp projections will cause more pain than a much larger one which is round or oval. When a calculus lodges in the common bile duct, the pain is not so sharp or severe as when it is arrested in the cystic duct.

When stones are in the common duct, the pain is outside of the gall bladder region.

In cases where the stone is floating in a dilated portion of the duct, the pain is remittent and in such instances change of position will sometimes relieve the pain.

## BOOK REVIEWS.

**Principles of Pharmacy.** By H. V. ARNY, Ph.G., Ph.D., Professor of Pharmacy, Pharmacy Department of Western Reserve University. Cloth, pp. 1175, with 246 illustrations, in seven parts. W. B. Saunders Co., Philadelphia. 1908.

Part I explains the origin, history and scope of the pharmacopeia, and

treats of the technic of pharmaceutical operations. Part II deals with the galenical preparations of the pharmacopeia, and the noteworthy non-officials. Parts III and IV treat of the chemical relations of drugs, chemical theories, and chemical arithmetic. Part V is unique, in that it includes a systematic grouping of all the pharmaceutical tests and



assays of the pharmacopeia. Part VI deals exhaustively with the prescription in all its phases. Part VII is an outline of laboratory exercises, including all the procedures of practical pharmacy, with equation writing and chemical arithmetic.

There are a few minor inaccuracies, but, as a whole, the book is well written. The redundancy of the considerable section on chemistry is made questionable by its supplementary character and convenience of access in incorporation with a work of which it is an important adjunct. It is a reference book of merit for any physician, but, especially to the dispensing physician. To the student of pharmacy it should prove particularly valuable

L. N. L.

#### **A Handbook of Medical Diagnosis.**

For the use of Practitioners and Students, by J. C. WILSON, A.M., M.D., Professor of the Practice of Medicine and Clinical Medicine in the Jefferson Medical College, and Physician to its Hospital; Physician to the Pennsylvania Hospital: Physician-in-Chief to the German Hospital. Philadelphia. 1909. Philadelphia, J. B. Lippincott Company.

The book is divided into four parts:

1. Medical Diagnosis in General.
2. The Methods and Their Immediate Results.
3. Symptoms and Signs.
4. The Clinical Applications.

The recent advances in the methods of diagnosis seem sufficient justification for a new volume on Medical Diagnosis. Dr. Wilson has clearly presented in an unusually interesting way the knowledge which is established and of value. In the many fields in which advances have been made, for instance, in blood pressure examination, X-ray examinations of the alimentary tract with the aid of bismuth, Grocco's sign, Cammidge's test, Von Pirquet's and Moro's reactions, etc., he has presented them so clearly that the book well bears out its title "For the Use of Practitioners and Students." This

book, like some personalities, will create recognition because of its own inherent greatness. The style is fluent and the book is pleasantly readable. The subject matter is comprehensive and exhaustive, yet concise.

The chapters on Methods of Examination and on Symptoms and Signs are notably comprehensive and complete, and herein we find a work that is of great value as a text-book and a work of reference for those especially interested in medical diagnosis. The chapters on Clinical Application are replete in differential diagnosis—a most valuable feature. The only adverse criticism is that the index is not quite as good as it could be when one desires to use it as a book of reference. For example, under Blood Pressure, it is stated that the knowledge gained is valuable in interstitial nephritis. Unless the reader happens to know the sphygmograph he would be unable to find what he is looking for in the index. This, of course, would not be an objection to the trained man, but it might well be to one who is not familiar with the whole subject. The book is profusely illustrated and the whole scope of medical diagnosis has been well encompassed.

WM. H. ROSS.

**Manual of Chemistry.** By WILLIAM SIMON, Ph.D. M.D., professor of Chemistry in the College of Physicians and Surgeons, of Baltimore and in the Baltimore College of Dental Surgery, Baltimore, and Daniel Base, Ph.D., Professor of Chemistry in the Maryland College of Pharmacy, and of Analytical Chemistry in the Department of Medicine, University of Maryland, Baltimore. Ninth Edition, Lea & Febiger, 1909.

This is a new edition of Dr. Simon's well known Manual, revised with the assistance of Dr. Base, and is "specially adapted for students of medicine, pharmacy and

dentistry." It is intended as a guide to lectures and also for laboratory practice. It is divided into seven parts, aiming to cover the whole science of chemistry in a compass of 700 pages. It is necessarily very brief in its treatment of individual subjects, giving what the authors conceive to be the essentials of chemical physics, theoretical discussions, descriptive chemistry, qualitative and quantitative analysis, organic and physiological chemistry, analyses of gastric contents, milk and the urine. The directions for many of the analytical operations are very brief, and precautions are not always stated as fully as need be. However, the book has met with a very ready reception and seems to fill a want among the teachers in medical schools.

E. H. B.

### **The Principles of Pathology.** J.

GEORGE ADAMI, M.A., M.D., LL.D., F.R.S., Professor of Pathology in McGill University, and Pathologist in the Royal Victoria Hospital, Montreal; Late Fellow of Jesus College, Cambridge, England, and ALBERT G. NICHOLLS, M.A., M.D., F.R.S., Assistant Professor of Pathology and Lecturer in Clinical Medicine in McGill University, Out-Patient Physician to the Montreal General Hospital; Assistant Physician and Pathologist to the Western Hospital. Volume II, Systematic Pathology. Lea & Febiger, Philadelphia and New York, 1909.

The first volume of this work by Professor Adami consisted of a treatise on general pathology, which in many ways is a classic. It is not necessary to go over again the many excellent points which are brought out in that volume.

Volume II discusses the results of diseases as affecting the different systems, while the first volume dealt

with the causes of disease and the morbid and reactive processes. Dr. Adami acknowledges that his first volume was bulky, but we wish to assure its readers that there was very little that could have been left out, without detracting from the value of the work. In taking up systematic pathology the writer presupposes the proper preparation for the student who otherwise could not appreciate the full value of the work. As the author explains, he must understand the histology of the different organs in order to appreciate the special pathological histology. The author reiterates that pathological anatomy is but one division of the subject, and that from the pathologist of to-day there is equally demanded an acquaintance with the effects of disease upon the function of organs. Particular stress is laid upon this because it is this department or aspect of pathology which, for the clinician and practitioner, if not the more important, is assuredly that capable of the more immediate application. It is indeed interesting to note the extent to which, nowadays, the advanced teaching in medicine is based upon functional pathology. As a connecting link, therefore, between theory and practice this functional pathology is of prime importance.

Section I, Vol. II, takes up for consideration the Cardiovascular system; section II, the Respiratory System; section III, the Alimentary System; section IV, the Nervous System; section V, the Ductless Glands; section VI, the Urinary System; section VII, the Reproductive System; section VIII, the Tegumentary System; section IX, the Muscular System; section X, the Osseous System.

The work, while it is not exhaustive, is complete, and is one of the most valuable additions on the study of pathology we have had in recent years.



# LONG ISLAND MEDICAL JOURNAL

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No. 3

## TRANSACTIONS OF THE ASSOCIATED PHYSICIANS OF LONG ISLAND.

### THE ANNUAL MEETING OF THE ASSOCIATED PHYSICIANS OF LONG ISLAND.

THE Twelfth Annual Meeting of the Associated Physicians of Long Island was held on January 29, 1910, at the Library Building of the Medical Society of the County of Kings. Dr. Frank T. De Lano, of Rockville Center, presided. There were over 100 members and guests present.

#### *Executive Session.*

The following men were elected to membership in the Association:

Morris G. White, 98 Gates Avenue, Brooklyn, L. I. C. H., 1895.

James H. Andrews, 500 Madison Street, Brooklyn, Bell., N. Y., 1896.

Curtis Claussen, 1327 Greene Avenue, Brooklyn, Bell., N. Y., 1905.

Forbes Hawkes, Port Washington, P. S. N. Y., 1891.

Henry W. Dangler, 455 Washington, P. S. N. Y., 1891.

Philip Ingram Nash, Neptune Avenue, Cortland St., Coney Island, Bk. Queens College, 1902.

Edward A. Pershing, Lawrence P. & S. N. Y., 1892.

James W. D. Hancock, 426a Hancock Street, Brooklyn, L. I. C. H., 1902.

The Chairman of the Publication Committee gave an extended report upon the work of the committee since the last meeting of the Association. He spoke of the unusual interest shown by members of the committee and of the plans for the coming year.

The fact was emphasized that all papers read before the Association became the property of the Association and must appear with the transactions when published in the JOURNAL.

The Secretary reported a total membership of 554, showing an increase of 50 members during the year. There have been five resignations and three deaths.

The Treasurer reported a considerable balance in the treasury.

The accounts were audited and found correct.

The chairman of the Historical Committee reported the deaths of the following: Doctor M. Stewart Caldwell, Far Rockaway, July 6, 1909; Dr. Louis A. Whitehouse, 631 Lafayette Avenue, Brooklyn, August 18, 1909, and Dr. Ferdinand C. Valentine, Belle Harbor, December 13, 1909.

A motion was made by Dr. Pilcher that the Historical Committee should report at each annual meeting the deaths of all members occurring during the year. Carried.

It was moved by Dr. Thomas R. French that the following notice be published in the LONG ISLAND MEDICAL JOURNAL, and appear upon the folders of the meeting: "All papers read at the meetings of the Associated Physicians of Long Island are the property of the Association and must be published with the transac-

tions of the Association in the LONG ISLAND MEDICAL JOURNAL."

### *Scientific Session.*

Dr. Warren L. Duffield, Chairman of the Scientific Committee, then presented the first speaker, Dr. Henry H. Morton, of Brooklyn, who read a paper on "The Surgical Treatment of Gonorrheal Epididymitis," which appears on page 90.

Dr. Harvey Cushing, of Baltimore, was then introduced and delivered a lecture on "Intracranial Tumors." The subject as presented by Dr. Cushing opened up a field which was entirely new to many of his audience. He described the various types of brain tumors, illustrating his subject with well chosen lantern slides. At the conclusion of his address he was tendered a vote of thanks by the members of the Association.

In the evening a vaudeville dinner was served at the Assembly and was attended by a large number of guests. Among those present were Dr. Thomas R. French, President of the Association; Dr. Frank T. De Lano, the retiring President of the Association; Major General Leonard Wood, Commander of the Department of the East and honorary member of the Association; Dr. Charles Jewett, President of the State Medical Society; Dr. John Mac Evitt, President of the Kings County Medical Society, and many other officers and members of the State and County Medical Societies.

The only address of the evening was made by Major General Wood, who spoke on the influence of the physician in the development of Cuba, Porto Rico, Panama, and the Philippines. In the course of his address the General said in part:

"No one has done more to make the army nobler and better physically and morally than the physician. A great many have complained of the great expense of the Spanish-American war, but I tell you the cost of one of our great quarantines is greater in a year than the entire cost of that war.

The conflict was one of the greatest benefits of civilized times in that it opened up an opportunity to study tropical diseases. The work of the medical profession and the establishment of schools in Cuba share equally the honors of developing that country. The physicians in the army will always be remembered and respected by the Cubans for the good work which we accomplished there. The Philippines, Porto Rico, and other tropical countries have benefited greatly from the study of the tropical anemia, scarlet fever, small-pox, and other diseases. The Panama Canal work is progressing, just because climatic conditions have been conquered through the efforts of the medical profession. I think there is no more fascinating study than the tropical diseases, and many of those we have learned to treat so successfully during the time of the Spanish War that we have not only conquered them, but we are now turning our attention to the presence of these diseases in the lower animals. In advancing medical science I regard the war we had with Spain as one of the greatest blessings in the world." The General spoke at length of the value of vaccination as demonstrated in the Philippines. He cited an instance in which a number of villages were infested with small-pox, the disease being present in almost every house. Eight hundred of our young soldiers were taken, vaccinated, and sent into this district to conquer the pestilence. Not a single one of these soldiers developed the disease, although they remained in the district and associated with the patients throughout the entire epidemic. No greater testimony of the value of vaccination could be wished for than this. The general paid a tribute to the medical men who had died in the performance of their duty in connection with the development of this country. His address was received with great applause.

### *Report of the Secretary for the year 1909.*

The Secretary had to report that during the year 1909 the usual meet-



ings were held and were well attended. The January meeting was held in Brooklyn, the June meeting at Blue Point and the October meeting at Rockville Center.

During the year fifty new names have been added to the membership

roll. There have been five resignations and three deaths. The total membership at the present time is 554, including the six honorary members. Of the 548 active members 155 are from Queens, Nassau and Suffolk Counties and 393 from Kings County.

## LOW-NITROGEN DIET IN TYPHOID FEVER.\*

By HARRIS A. HOUGHTON, M.D.

The Bayside Infirmary; Associate Staffs of the Flushing Hospital and the Nassau Hospital, Bayside, L. I.

OUR conception of the duration, severity and course of the average case of typhoid fever on a diet high in nitrogen and of low caloric value is well formulated. So universal is the use of milk as a main article of food, and the various "peptone" preparations that we can expect in the average case certain pulse rates and certain degrees of fever. If a method of lessening the pulse rate and lowering the fever in the average case is presented, and that by so simple a means as modifying the diet, such a claim is worth investigating, particularly if the theoretical foundations for the change are sound.

Shaffer<sup>1</sup> has estimated that the typhoid fever patient rarely receives more than 50 per cent. of food necessary to supply dynamic needs. This usually contains at least three times more nitrogen in proportion than would be advisable to allow a healthy individual. Naturally the balance of the dynamic needs must be met by the body tissue with consequent loss of weight and increasing weakness.

The favorable results obtained with Seibert's<sup>2</sup> soup diet led to this article. He does not use milk. The relative amounts of protein, fat, and carbohydrate are difficult to estimate, but there is a commendable increase in

energy producing elements. The cases reported are sufficiently numerous to draw satisfactory conclusions concerning the death rate. But most convincing to the judicial observer is the frequent absence of necessity for baths and stimulation, and the absence of those symptoms which make the life of the typhoid fever patient miserable.

In recommending a suitable diet for the fever-stricken patient, the first point to be taken into consideration is the general capacity of the digestive tract to care for the food with which it is presented. Kraus has this to say of the gastric secretions: "The amount of HCl is so small that the affinity of the food is not satisfied. Organic acids contained in the food or derived from it by fermentation preponderate in the chyme. Von Noorden obtained, *together with numerous negative results*, distinct evidences of HCl during the high fever of erysipelas and scarlet fever, provided large amounts of salt and pepper were added to the meat taken." According to Sticker and Zweifel, the power of absorption is diminished, but the motor functions seem to be undisturbed.

The hepatic functions in typhoid fever are also altered. Post-mortem degenerative changes are found and acute yellow atrophy may follow intense toxemia. There is a diminution in the quantity of the bile (Bidder and Schmidt), it is more viscid, and contains an abnormal amount of mucus (Pisenti). Naturally there

\* Read before the Associated Physicians of Long Island.

Abstract of a paper published in the *American Journal of Medical Sciences*.

<sup>1</sup> Shaffer—*Journal of the American Medical Association*, 1908, li., 974.

<sup>2</sup> Seibert—*Medical Record*, June 20, 1908.

exists no evidence as to the integrity of the pancreatic secretion or the succus entericus. That these digestive juices, in common with others, are diminished in quantity and altered in quality, particularly in typhoid fever, is the natural and justifiable assumption. There is an admitted 10 to 12 per cent. decrease in the digestive capacity of the typhoid fever patient for all classes of foodstuffs (von Hoesslin). With the above facts drawn from precise observation before us, are we justified in believing that 10 to 12 per cent. covers the amount lost!

It is my purpose to omit discussion as to the power of the fever patient to digest and assimilate fat and carbohydrate. The present view that digestion and assimilation of protein is normal within 10 per cent. rests on the accuracy of the nitrogen balance as an experimental procedure. Does nitrogen which has disappeared enroute through the fevered digestive tract mean normal utilization?

*Protein Assimilation in Fever.*—It is not possible to differentiate the sources of fecal nitrogen in a given case. According to Voit, who tied off intestinal loops in dogs most fecal material is true excrement from the walls of the intestines or glands emptying therein. Strassburger estimated that one gram of nitrogen in the normal stool is contained in the bodies of bacteria, which may have arisen from food or secretion nitrogen. There is also nitrogen to be found in desquamated cells, carbon nuclei fractions resulting from bacterial activity and other minor sources. Further, in typhoid fever there may be blood and reparative serum exudates which have survived the destructive influences above mentioned.

An increase in protein intake does not cause an increase in the nitrogen of the feces until the capacity for assimilation is far exceeded. The first effect is increased nitrogen exchange, and the evidences appear in the urine. As soon as it reaches the lower limit of heat requirements in the starving

man, oxidation and heat elimination increase, and the thermo-regulating mechanism is called into play. This is the effect of the specific dynamic action of protein as demonstrated by Rubner. The second effect of the overuse of meat is usually increased intestinal putrefaction, with increase of its products in the urine and sometimes in the feces. It is only during recovery from disease, and prolonged muscular exercise that the body is able to retain any quantity of nitrogen by increased protein feeding.

Approximately 82 per cent. of the urinary nitrogen is eliminated in the form of urea. This substance has no single source. A portion is derived from the liver and in part represents unused residual ammonia fractions arising as required alterations in molecular form take place in the change from the food to body proteins. A portion is derived directly from food proteins by simple hydrolytic splitting, such as may occur after the ingestion of arginin. A portion is the end-product of cellular metabolism. Urinary creatinin is exogenous and endogenous, the latter, according to Folin, being a measure of cellular metabolism. The same is true of xanthin bases. Sulphuric and glycuronic esters are products of intestinal putrefaction.<sup>6</sup>

The urinary nitrogen of the fever patient shows alteration in distribution. The total amount is increased proportionately to the intake. The quantity of endogenous purins increases with the fever (Mandel), and proportional to the whole nitrogen output. Ammonia in combination with organic acid always increases, and often at the expense of urea ammonia. This ammonia excretion shows a total weight from 2 to 6 grams as against 0.7 gram in health. The creatinin nitrogen on a creatinin-free diet shows a ratio to total nitrogen of 0.2 to 4.5 as against 5 to 7 in health (von Noorden). The excretion of indican may be increased by eight or ten times over the health maximum. In severe infections the distribution of nitrogen may be so



altered as to resemble the toxemia of pregnancy (Ewing).

*Kidney Capacity in Fever.*—The possibility that nitrogen may be retained in the form of excrementitious products, secondary to the irritation of infection must be admitted, and may under these circumstances be the equivalent of latent uremia.

*Nitrogen Excretion by the Skin During Fever.*—Nitrogen is excreted in the perspiration, the whole amounting from 0.2 to 0.66 gram daily (Atwater and Benedict). Increase in nitrogen elimination usually follows increase in the quantity of sweat, as the result of muscular exercise. The external temperature and humidity also have their effect. If uncalculated in the nitrogen exchange during fever, the uppermost limit of sweat excretion as measured by muscular activity would lead to an error of 12 or 15 per cent. on a diet having the quantity of nitrogen recommended by Chittenden for the healthy individual.

*Bacterial Disintegration of Protein.*—Of great importance are bacterial processes in the intestine during fever, and especially typhoid. The withdrawal of digestive juices and delay in digestion of protein is an opportunity which intestinal bacteria do not neglect. This is shown by the large excretion of urinary aromatic sulphates, the meteorism, and foul stools. We are unacquainted with bacterial processes in the intestine during typhoid fever. We know nothing of possible powers which *Bacillus typhosus*, acting alone or in symbiotic activity with *Bacillus coli* or anaerobics, may have in disintegrating foodstuffs and thereby producing a toxemia independent of but augmenting the intoxication of the disease. The amount of protein lost to the organism in this manner cannot be estimated, but it must be considerable on a high protein diet.

*Conclusion.*—It is not forcing the conclusion to say that a daily nitrogen balance does not necessarily indicate proper digestion, absorption, and utilization of protein in the fever patient. "It is by no means certain that the

amount of nitrogen retained is a measure or the equivalent to accumulation of body albumin" (von Noorden). Only as the nitrogen of the food becomes an integral part of cell life (Hoffmeister's stabile protein) is it serviceable to the organism. Potentially, it may become of service in the form of labile protein. With a healthy organism and by suitable food—a minimum of protein and maximum of carbohydrate and fat—the nitrogen exchange would tend to diminish to a point where it would coincide with true nitrogen metabolism. In practice this point is rarely reached, and, if possible, would be of doubtful value (Meltzer). These facts should make us extremely skeptical concerning the utilization of protein by the fever-infected organism—especially in typhoid fever.

*Metabolism During Fever.*—It is of prime importance, in deciding on a dietary for fever patients, to recognize certain altered metabolic processes and thereby adjust the supply to the requirement.

*The Causation of Fever During Infection.*—Increased oxidation brought about through the action of toxins on thermo-regulating centres in the central nervous system is usually given as the cause of fever. Inquiry into the respiratory quotient, heat elimination, and the condition of the circulation bear out this conception only with modification. Von Noorden measured the daily calorie output of a typhoid patient weighing 48 kilograms, the fever ranging about 38.5° C., and found that he eliminated 1200 calories, or 25 per kilogram. The patient preserved his weight on a diet rather rich in protein. No relation has been established between the degree of pyrexia and perceptible alterations in the respiratory quotient. There may be an increase in oxidation processes, but in a large majority of cases the respiratory quotient and caloric output remain normal. The character of ingested food seems to have more influence than any other factor.

The maintenance of body temperature during muscular work and in-

creased oxidation depends on loss of heat through conduction and radiation, and secondly by evaporation of water, mainly through the skin and to a less extent through the expired air. Conduction and radiation are limited by circulatory changes in infective fever. This action begins as soon as the absorption of toxins commences by causing a general constriction of ultimate arterioles. Heat production and heat outgo become equal after the first thirty-six hours, with the body temperature at a higher level.

It seems probable that some degree of pyrexia in typhoid fever may be accounted for by oxidation processes in the intestine due to bacterial activity, especially in cases in which the food content is favorable for such action. Thermogenic bacteria are common inhabitants of the bowel (Macfadyen).<sup>3</sup>

*Increased Protein Destruction in Fever.*—An increased destruction of cellular protein which shows itself in urinary nitrogen is always noted in infective fever. This loss is attributable to the cause of the fever or the infective process, and the loss does not account for the increased pyrexia. In a case observed by von Leyden and Klemperer, the diet contained 25.1 grams of nitrogen in twenty-four hours, and the excreta contained 31.5 grams, of which 29.6 grams appeared in the urine. On the observed day the patient received a total of 1732 calories, and the highest temperature was 40.2° C. There was a nitrogen loss of 6.4 grams. The cause of such losses may be found in two directions: (1) Destruction due to the rise of body temperature. This is shown best by the loss of nitrogen in animals subjected to a high temperature. Voit found that by artificially raising the temperature of a fasting dog to 40° for a period of twelve hours, there was an increase in nitrogen elimination of 37 per cent. above the normal. There was no toxic element to obscure the picture. (2) Nitrogen loss due to the virulence with which

the toxins attack body tissue. This varies with the character of the infection. According to Ehrlich, the labile protein molecule and the toxin molecule both contain haptophore groups, and the mechanism of attachment to cellular protein is the same. During infection, cellular protein exhibits greater affinity for toxins than labile (food) protein. If this were not so, immunity processes would be seriously inhibited. Therefore, in severe infection, with abundance of toxins in the circulating blood, cellular activity results in augmented nitrogen output. Regeneration is possible only as the intoxication decreases and attachment of nutrition nitrogen supercedes that of toxin nitrogen. It will be possible to maintain cell equilibrium of nitrogen only when side-chains available for nutrition are equal in number to those combining with intermediary bodies. If the former exceed the latter as the infective process subsides, cell regeneration takes place and the effect is retention of nitrogen in the form of stabile protein.

*Metabolism of Fats and Carbohydrates in Fever.*—In pyrexia the glycogen of the liver disappears and that of the muscles increases. This migration is probably accounted for by the need of the cells for combustible material. The burning of body fat is proportional to the burning of protein, and plays its part in the weight decrease. After absorption the behavior of carbohydrates is not materially different from that in health.

*The Acidosis of Pyrexia.*—An increase in the output of urinary ammonia (in combination with acid) has been noted. This may reach as high as 6 grams (normal 0.7 gram). The three acetone bodies have been isolated, and feeding starch does not always cause them to disappear. Von Noorden was inclined to attribute their appearance to inanition and lack of nourishment. They certainly indicate perversions in oxidation power. It is interesting to note in this connection that Herter has isolated small amounts of acetone from cultures of mixed fecal bacteria. Since it has been

<sup>3</sup> *Jour. Path. and Bact.*, 1895, iii, 87. (Full references to French literature.)



shown that the acidosis of diabetes is not dependent on bacterial activity in the intestine, too little importance has been attached to a possible connection. Whether the acidity can be referred to destruction of body or food protein<sup>4</sup> cannot be said.

*The Internal Organs in Fever.*—While in many instances the functional capacity of an organ can be conjectured by postmortem changes, urinary evidences of decrease in renal function are too well understood to need more than passing mention. It must be granted that these organs bear the brunt of the infection and are most susceptible to its influence.

*The Specific Dynamic Action of Foodstuffs.*—Many years ago, Rubner recommended that the excessive use of protein in infective fever was contra-indicated by its specific dynamic action. This is best illustrated by experiment on a starving dog. The heat produced was observed to rise 42 to 46 per cent. after consumption of 2000 grams of meat. At the height of digestion, the increase was still greater, sometimes attaining 90 per cent. The effect passed off at the close of the tenth hour. As long as the protein consumption remains high, the energy transformation remains high. According to Rubner, for every 1 per cent. addition to the protein of the food, there is an increase in the consumption of energy on a pure meat diet of from 2 to 2.5 per cent.<sup>5</sup> The constant deposit of protein continually raises the heat production in the organism until a point is reached when no more protein is added to the body.<sup>6</sup> This is the point of nitrogen equilibrium, and when the spring action

of fats and carbohydrates is utilized, the point is quickly attained. It is evident that on a purely protein diet the dynamic needs cannot be met, the same conditions obtaining in a less degree by a use of a relative excess of protein. The only exception to this rule is when the intake of protein is less than the dynamic needs of the starving organism at rest. The increase in energy consumption is manifested by increases in oxidation and consequently is manifested in the respiratory quotient. This specific dynamic factor which averages in the case of protein 30.9 per cent. has been found to be 12.7 per cent. for fat and 5.8 per cent. for sugar, carbohydrates in general falling between the last two figures. With respect to fats and carbohydrates, this increase in energy consumption has been referred to increased activity of digestive glands, but for proteins it is attributable to the specific action which protein has upon oxidation processes in the cell.<sup>7</sup>

*Sources of Corporate Energy.*—The caloric values of protein, carbohydrate and fat are well understood. The point to be especially elucidated involves the source of energy in protein. The amount is relatively small, and there is good reason to believe that it can be referred to its carbohydrate content or to carbohydrate derivatives. Pavy has shown that nearly all proteins contain a carbohydrate group performed in the molecule. This may attain 10 per cent. It is quite possible that the transformation of sugar from protein may determine the available source of energy in protein. Lusk, also, has shown that 52.5 per cent. of the energy contained in meat protein may be liberated under certain circumstances as dextrose in the organism, and this directly used by the cells. Protein as a source of energy is, therefore, not as economical as carbohydrate or fats, the organism being unable to maintain heat production by its use without the assistance of more easily combustible foodstuffs.

<sup>4</sup> The proportion of bases to acids in the protein molecule averages 25 to 35. Mann's Chemistry of Proteins.

<sup>5</sup> It is usually calculated that 20 per cent. increase in the dynamic value of food for fever patients should be allowed over that of the resting individual. It would be interesting if it should transpire that this resulted solely from protein consumption.

<sup>6</sup> We are not at liberty to use the terms "heat equilibrium" and "nitrogen equilibrium" as synonymous terms. There may be loss of weight with nitrogen retention. There may be heat equilibrium with loss of nitrogen. To assume that an individual is in heat equilibrium because there is a nitrogen balance or gain would not be allowable until weight had been maintained for a long period.

<sup>7</sup> To illustrate this point, an exact comparison between the patient with fever and an individual subjected to high external temperature is allowable.

*The Standard Fever Diet.*—The ideal fever diet should consist of such foodstuffs as will meet the dynamic needs of the organism, and prevent excessive loss of weight until natural immunity processes terminate the disease. Its specific dynamic action should be as small as possible, and the end-products of metabolism should be such as to be capable of elimination without additional strain to those organs. If, by reason of digestive limitations, the food is subjected to bacterial influences, the end-products of such alteration should present the minimum of toxicity. Of considerable importance is the danger of increasing the relative acidosis through improper food, or possibly augmenting the fever through excessive use of purins.

The objections to protein as a food-stuff for the typhoid fever patient having been pointed out, it remains to show that, as compared with probable damage, very little good follows its use. To maintain the body in nitrogen equilibrium does not prove that protein reaches the cell and becomes a part of intracellular life. In fever there are many influences which may turn it aside from its normal pathway. Nitrogen metabolism in pyrexia cannot be altered to the normal as long as the infective process continues, the toxic destruction of the cell strictly limiting regeneration even with a large protein intake. In the latter event the nitrogen exchange is raised, and the toxic destruction of cellular protein continues. Nitrogen loss in infectious diseases is the inevitable consequence of the disease, and while not desirable if it can be prevented, still it is yet to be shown that its loss is *per se* objectionable.<sup>8</sup> In any event, if the sparing action of fats and carbohydrates is used to the fullest extent compatible with appetite and digestive capacity, it is probable that this deprivation of protein food will not figure in the death rate.

Voit has shown that carbohydrate

may spare the loss of body albumin from overheating by subjecting a starving dog whose temperature has been raised to 41° C. for a period of twelve hours and noting that 40 grams of cane sugar protected against nitrogen loss. The toxic element was not present in this experiment, and the loss due to pyrexia alone was compensated. The starving nitrogenous metabolism can be reduced to one-third by the use of carbohydrates (Folin, Rubner). Siven maintained nitrogen balance in a man weighing 65 kilograms or 4 or 5 grams of nitrogen daily. Three and a half per cent. of the total caloric value of the food was in protein, the total being 2717. Chittenden found that nitrogen equilibrium could be maintained on a diet the caloric value of which was 1500 to 1600. The first few days of Cetti's starvation shows that 13 per cent. of the total energy exchange was derived from protein and 87 per cent. (minus a small fraction derived from glycogen) from fat.

Von Noorden measured the daily caloric output of a number of fever patients. One suffering from typhoid fever yielded only 23 to 25 kilogram of body weight. With lower values, weight was maintained by retention of water, as shown in many cases by developing œdema. Lower values sometimes were obtained in chronic fever, showing that prolonged intoxication of the cell was followed by low oxidizing power. This corresponds very well with the minimal caloric output of the resting healthy man as determined by Jonhanssen and others, the gaseous exchange remaining low. To this figure should be added sufficient to equalize the loss from the specific dynamic action of the food-stuff used, which in the case of carbohydrates and fats averages about 8 per cent. Von Leyden's estimate of caloric necessities for the bed-ridden patient, in diseases not involving metabolic perversions, was from 28 to 30 calories per kilogram.

These figures are given to furnish a suitable basis for computing the average needs of the patient suffer-

<sup>8</sup> Concerning the condition of the cardiac muscle, the loss of tone in febrile states is probably due to overwork and toxic destruction, loss from pyrexia not entering as a factor.



ing from typhoid fever. The advantage of arbitrarily establishing a standard for every patient is doubtful, even on a basis of weight. The practising physician recognizes that while the science of physics requires the use of precision instruments and takes cognizance of minute differences, it is not possible to proceed with such exactitude where vital forces are concerned. The totality of factors influencing cell activity is not yet apparent.

*The Use of Plain or Fermented Milk in Fever.*—There are many disadvantages in the use of milk referable to its chemical composition. According to Dreschel, 9 per cent. of the nitrogen in casein can be separated directly by hydrolytic splitting into urea, this portion being of little service to the organism. The casein molecule contains 7 per cent. tyrosine and 1.5 per cent. tryptophane which under the influence of bacteria yield toxic phenol and indol compounds. It contains no glycolol.<sup>9</sup> To the chemist, casein is easily disintegrated, for it contains no peptones of the antigroup. Its use in practice demonstrates that when caseinogen is converted to casein by the action of lime salts, large curds form in the stomach and intestines, limiting the action of enzymes to the exterior surface, while bacterial processes continue on the interior. Sassetzky found that the loss of nitrogen on a milk diet in typhus ranged as high as 24 per cent. The absence of curds from the stool does not demonstrate the utilization of the casein molecule, sufficient time elapsing while traversing the gastro-intestinal tract to allow of bacterial disintegration. Impure, it adds infection to the intestinal contents.<sup>10</sup> It also furnishes excellent culture media for typhoid and other bacteria.

Rubner<sup>11</sup> says: "To cover a requirement of 2400 calories daily, 3410 grams of milk would be needed, which

contains 140 grams protein!" This is more than twice the amount of protein contained in Chittenden's dietary for the normal men. It holds preformed in its molecule, carbon nuclei which are capable of great evil and does not contain those which are obviously of the most service.

In closing, nothing better can be said than to quote the following spoken by Dr. Alexander Lambert<sup>12</sup> at a recent meeting of the American Medical Association: "I think if Dr. McCrea will leave out milk, he will be convinced that there is a better diet and a more generous one of rice, broth, sugar, butter, and a few crackers. It will open his eyes to the possibilities of a diminution in the toxicity of typhoid fever, a diminution of the delirium and meteorism in a majority of patients."

#### SAMPLE DIET—TYPHOID FEVER.

Approximate values are based on the following data: Body weight, 60 kilograms; total caloric value, 2300; per kilogram body weight, 35 calories; distribution by weight, protein, 5.3 per cent.; carbohydrate, 55.5 per cent.; fat, 4.5 per cent. (Balance ash, water, and inedible refuse. This will yield 0.85 gram of nitrogen.)

*The Preparation of Vegetable Soup.*—Sixty grams each of green or canned French peas, white dry beans, potato, rice, and noodles, and 15 grams of carrot are boiled in water at least four hours. Sufficient water should be added to make one liter—which is sufficient for four feedings. The whole yields 760 calories, of which 6.3 per cent. is protein, fat less than 0.2 per cent., and 43.9 per cent. is carbohydrate. When ready to use, stir up sediment and allow the patient to eat all (including noodles), with the exception of the pea and the bean skins. Onions may be added for flavor if desired.

*General Directions for Feeding.*—The patient should be fed with a spoon by the nurse.

<sup>9</sup> The chemical relationship between glycogen which disappears from the liver during fever and glycolol indicates that an abundance of the latter would be advantageous.

<sup>10</sup> The pediatricists recognize the value of bacteria-free food. Incidentally it might be added that cow's milk was originally intended for growing calves.

<sup>11</sup> Von Leyden's Handbuch, 1903, i, 132.

<sup>12</sup> Discussion, Jour. Amer. Med. Assoc., 1908, li, 987.

The food should remain in the mouth as long as convenient.

Allow water between feedings, not at feedings.

Allowances or corrections are to be made for increase of nitrogen need during the first ten days and during convalescence. At the height of fever, if the patient cannot eat the full quantity, substitute isodynamic quantities of milk sugar. A relative decrease of weight should be reflected in the

DR. J. FINLEY BELL, of Englewood, N. J., said that recently in the literature, several papers had appeared dealing with the method of feeding patients with typhoid fever. Heretofore these patients had been fed by adhering too closely to a milk diet. On the other hand the appearance of so many papers advocating a more liberal diet would have a tendency, he believed, to cause those feeding such patients to go to the other extreme.

| Hour.   | Material.                 | Weight.<br>Grams | Approximate Amount.      | Percentage. |                 |                | Calo-ries. |
|---------|---------------------------|------------------|--------------------------|-------------|-----------------|----------------|------------|
|         |                           |                  |                          | Pro-tein.   | Fat.            | Carbo-hydr.te. |            |
| 6 A.M.  | Choice of: Toast,         | ..               | 2 thin slices .....      | ..          | ..              | ..             | ..         |
|         | Huntley and Palmer        | 35               | ..                       | ..          | ..              | ..             | ..         |
|         | breakfast biscuit,        | ..               | 5 .....                  | ..          | ..              | ..             | ..         |
| 8 A.M.  | or Zwiebach .....         | ..               | 3 .....                  | 8.9         | 1.4             | 60.3           | 125        |
|         | Cup coffee, sugar .....   | 24               | 2 heaping teaspoonfuls.. | ..          | ..              | 100.0          | 100        |
|         | Cream .....               | 8                | 1 dessertspoonful .....  | 2.4         | 17.6            | 4.5            | 35         |
| 10 A.M. | Gruel, cream of wheat...  | 60               | 2 heaping tablespoonfuls | 9.3         | 1.6             | 74.0           | 230        |
|         | Oyster crackers .....     | 30               | Large handful .....      | 7.6         | 8.2             | 71.6           | 130        |
|         | Vegetable soup .....      | 250              | 8 ounces .....           | *6.3        | Negli-<br>gible | 43.9           | 190        |
| 12 M.   | Baked potato .....        | 80               | Size of orange .....     | 1.9         | 1.0             | 20.0           | 65         |
|         | Creamed after mashing..   | 16               | 1 tablespoonful .....    | 2.4         | 17.6            | 4.5            | 35         |
|         | Butter .....              | 8                | Size of a domino .....   | 1.0         | 80.8            | ..             | 60         |
| 2 P.M.  | Hot weak tea, sugar ..... | 21               | 2 heaping teaspoonfuls.. | ..          | ..              | 100.0          | 100        |
|         | Toast .....               | 35               | 2 thin slices .....      | 8.9         | 1.4             | 60.3           | 125        |
|         | Tapioca pudding .....     | 60               | 2 tablespoonfuls .....   | 2.8         | 2.9             | 28.2           | 100        |
| 4 P.M.  | Oyster crackers .....     | 30               | Large handful .....      | 7.6         | 8.2             | 71.6           | 130        |
|         | Rice .....                | 100              | ..                       | 6.5         | 0.3             | 76.9           | 350        |
|         | Butter .....              | 8                | Size of domino .....     | 1.0         | 80.8            | ..             | 60         |
| 6 P.M.  | Sugar .....               | 24               | 2 heaping teaspoonfuls.. | ..          | ..              | 100.0          | 100        |
|         | Toast .....               | 35               | 2 thin slices .....      | 8.9         | 1.4             | 60.3           | 125        |
|         | Butter .....              | 8                | Size of domino .....     | 1.0         | 80.8            | ..             | 60         |
| 8 P.M.  | Sugar .....               | 12               | 1 heaping teaspoonful .. | ..          | ..              | 100.0          | 50         |
|         | Vegetable soup .....      | 250              | 8 ounces .....           | 6.3         | Neg.            | 43.9           | 190        |
|         | Oyster crackers .....     | 30               | Large handful .....      | 7.6         | 8.2             | 71.6           | 130        |

\* Percentage of solid material.  
Weights of vegetables are those prior to cooking. Butter washed to remove free acid is preferred.  
All foods to be cooked for four hours.

caloric value of the food on the basis of 4 kilograms of loss per week of disease.

DISCUSSION OF DR. HOUGHTON'S PAPER.

Discussion.

DR. WALTER TRUSLOW, of Brooklyn, said that a very important feature in the treatment of typhoid fever patients was the condition of the patient's mind, this condition being brought about by the knowledge that he was being well fed; they do not have the constant annoyance of wanting something to eat at all times. This extreme hunger with the accompanying irritability of mind was very annoying in these individuals and by giving more food could be overcome.

Milk and cream have some place in the diet of these patients. The caloric value of the food could be raised by the addition of fat; also, instead of 4.1 let there be of each 5.9 of proteid and carbohydrate. The secretions were diminished in typhoid fever; if that was true they should give a diet which would contain the number of calories required and yet which was possible of assimilation or appropriation by the economy. Some fats would be split and form oxybutyric acid which was more injurious to the intestinal wall than the mere presence of a few curds would be.

Dr. Bell believed that in working out a diet for a patient with typhoid fever, they should individualize more. Dr. Warren Coleman of New York



was an advocate of a more liberal diet, but great care must be exercised in its use. Curds of casein were not so very serious; the fault did not lie with the curds particularly; digestion was at fault. One had no right to assume that the casein was at fault because it occurred in large masses in the stools.

With regard to the desirability of calories, some time ago at Finklestine's clinic the milk sugar was withdrawn from the diet of the babies; but they were selected cases; there were the stationary cases, the gaining cases, and the losing cases. After the discontinuance of the lactose, there was no appreciable difference in the weight of these three sets of children.

DR. HARRIS A. HOUGHTON, of Bay-side, L. I., said he was familiar with Dr. Warren Coleman's work and both he and the doctor were convinced that their method of feeding in typhoid fever was the correct one. In fever patients, with any other condition, he

doubted if conclusions were to be drawn in regard to the amount of calories a person could take in his food and properly digest that food. Dr. Coleman's paper showed that a patient with typhoid fever could take in food representing four thousand (4,000) calories, and digest it, but this food consisted largely of sugar of milk.

The general trend of Dr. Houghton's paper was that it was far better to give a food which would yield the least possible amount of toxins rather than to give a food which, under the influence of bacteria, would develop a larger amount of toxins.

In regard to the question of milk he felt strongly on this point because he had seen so much good from its non-use. In the study of the chemistry and architecture of what was contained in an ordinary diet it would be shown that certain things were present which should be there, and again there were present certain things which should not be there.

## TRAUMATIC AFFECTIONS OF THE KNEE-JOINT.\*

By ROLAND HAZEN, M.D.

Consulting Surgeon, Central Islip State Hospital.

BRENTWOOD, L. I.

**I**T is a commonly acknowledged fact that the knee is more frequently disabled by injury involving the internal joint structures than any other joint of the human anatomy. Every physician, much to his chagrin, encounters "chronic knees," following injuries, direct or indirect, and often slight, in which the disturbance of function, through fluid formation, pain, locking, grating, weakness, or limitation of motion, is either unduly prolonged or appears in recurrent attacks. While it is impossible, with our present knowledge of these conditions, to determine just which structure is at fault in every individual case, there has appeared within recent

years sufficient operative and post-mortem evidence to demonstrate that in practically all of these cases there is some derangement of one or more of the several complicated structures found within the capsule of the joint, of sufficient severity to mechanically prevent a return of the normal function and often, if not removed by operation, to seriously endanger the integrity of the joint.

It is a striking observation that this tendency for trauma to be followed by prolonged or recurrent disability is peculiar to the knee joint, and that in this joint it is common. And furthermore, so far as I have been able to ascertain, man stands curiously alone in the animal kingdom in his tendency to internal derangements of

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this joint. Veterinary text-books give scant attention to affections of this joint beyond a description of outward dislocation of the patella.

These observations indicate that there is some fundamental weakness in the construction of this joint, as compared with other joints of the body, and also as compared with the corresponding joint in the lower animals; a distinction which has not been appropriately emphasized, nor am I aware of its having been demonstrated by comprehensive anatomical comparisons. In venturing upon the anatomy, I do so with the belief that it may contribute to our knowledge of the causation of these affections peculiar to the human knee, and thereby aid in placing their diagnosis and treatment upon a more rational basis.

In the quadrupeds as a class, we find that this joint presents two main features of fundamental difference from that in man.

1. On account of the horizontal position of the quadrupeds the condyles of the femur are decidedly elongated, and project directly posteriorly at right angles from the end of the bone. The articular surfaces are mounted on the ends of the condyles, and are separated from each other by a distinct interval. The elongated trochlear surface, for the articulation with the patella, is situated well up toward the anterior surface of the femur. Thus, these three articulations are well separated from each other and, therefore, are comparatively independent of each other in their actions. In fact, in some of the lower animals, they are separated by a distinct synovial cavity for each of these articulations, while in others there is but a partial confluence of these cavities. The space between the ligamentum patellæ and the articular surfaces is occupied by a soft, fatty, pad, presenting its posterior aspect to the interior of the joint, as a smooth, flattened, surface. This arrangement affords a comparatively simple mechanism, with apparently little opportunity for mechanical in-

terference with the joint activities. (Figure 4.)

The erect position in man, however, brings the condyles almost into the axis of the femur. The articular surfaces are broadened for weight bearing, enlarged for the increased range of motion, and are less widely separated from each other. The trochlear surface connects directly with the condylar articulations, and the joint is converted into a compound, confluent, structure, with but a single synovial cavity. The fatty tissue in the capsule anteriorly has consequently changed, to a broadened, and horizontally flattened wedge, pointing posteriorly, and now it presents as a menacing adaptation, extending its edges, flaccid and frayed, into the very cogs of this complicated machine. Little wonder if these edges, brushing the articular surfaces with every movement, were not occasionally caught between the bones, especially when congested by trauma, or in consequence of a wrench of the knee. (Figure 1.)

2. In both the mammalian and the human knees there are two main groups of muscular supports in relation to the joint. The quadriceps extensor, anteriorly, and the ham-strings posteriorly. These effectually control flexion and extension. In the quadrupeds, however, we encounter an additional group, of lateral controllable supporters, variously found in the different species. This group is made up of ligamentous and tendinous structures. The ligamentous consist, chiefly, of two accessory ligamenta patellæ of large size, one on each side of the patella. They pass somewhat obliquely across their respective condyles, to be inserted into the corresponding lateral aspects of the tibia. These are well represented in the horse and the cow.

There are three of the tendinous lateral supports that are commonly found; two external and one internal. They consist of the perineus brevis, taking its origin from the external condyle of the femur, in conjunction with the external tibiofemoral liga-



ment, and lying on the lateral aspect of the joint; the extensor longus digitorum, taking its origin from the external condyle, in a stout tendon, which passes freely over the antero-lateral aspect; and the semimembranosus occupying a lateral position along the inner side of the joint, its tendon passing beneath, or in conjunction with the internal tibiofemoral ligament, to insert into the tibia. Sutton (1) gives evidence to show that the internal lateral ligament is derived from the adductor magnus muscle. The relation of the insertion of the latter to the upper attachment of the lateral ligament suggests that the continuity of these structures, in times past, has also served as a lateral controllable support. By means of these attachments the joint tension, lateral motion, and rotation, are under muscular control in all degrees of flexion and extension. (Figures 2 and 4.)

In man, however, these controllable lateral supporters are entirely wanting. The popliteus affords the sole lateral tendon in man and is identical with that in the lower animals. Its control over joint tension and lateral motion, however, is very slight, it being essentially an internal rotator. There is but the single ligamentum patellæ, and in the place of the above lateral tendons there are found, respectively, the two external and the internal lateral ligaments. These comparatively delicate bands become tense on extension, and relaxed on flexion, thus exerting no controllable fixity over the joint during activity. And thus, it appears that the human knee joint is comparatively ill provided, anatomically, to resist the strains and twists to which it is subjected through the various trades and sports to which man lends himself. (Figures 1 and 3.)

A dissection of the sheep's knee (stifle joint) (Figures 2 and 4) shows many of the above features. There is one accessory ligamentum patellæ, about one-third of the size of, and lying about one-half inch external to, the ligamentum patellæ. The small external lateral ligament is blended with the origin of the perineus brevis,

and the antero-external ligament is of large size and is purely the tendonous origin of the blended tibialis anticus and the extensor longus digitorum. The latter tendon arises from the anterior portion of the external condyle, and lies within the capsule and about one-third of an inch external to and parallel with the ligamentum patellæ. The semi-membranosus tendon passes along the inner aspect of the joint and beneath the internal lateral ligament to insert in the lateral aspect of the tibia. The external semilunar cartilage is attached posteriorly on a different plan from that in man. Instead of being inserted into the tibia anterior to the posterior crucial ligament, it passes upward and inward obliquely over the posterior articular surface of the external condyle to be inserted upon the internal condyle just above and external to its articular surface. Now in movements of the joint the external condyle, being almost spherical in shape, rolls back and forth with practically no sliding motion, and the posterior portion of the external semilunar cartilage is seen to wind up on the condyle during extension and to unwind during flexion. This posterior guy, together with the external lateral and the antero-external tendonous supports thus lends a firm and controllable fixity of the external condyle in all positions of the joint. The internal condyle is bean-shaped and fits into the deep concavity of a very thick semilunar cartilage. Its motion is almost entirely that of a gliding on the semi-lunar cartilage with but slight antero-posterior shifting of the geometrical center. This difference in the motion of the two condyles is perceptible, to a slight extent, in the human knee. The trochlear surface of the femur is entirely separate from the articular surfaces of the condyles, instead of being blended with them as in man. This is due to the greater length of the condyles and their axis being carried posteriorly to a right angle with the shaft of the bone. The synovial cavity is divided into two portions, the one for the external condyle,



FIG. 1.

FIG. 1.—Outer aspect, left human knee joint, showing the two external lateral ligaments, relaxed in flexion; and the fatty collection beneath the patella; the horizontally flattened wedge shape of the latter is apparent though somewhat obscured by the prominence of the alar ligament in the foreground extending up to the side of the patella; the posterior edge of the fatty wedge, irregularity fringed, is indistinctly seen within the joint lying on the upper surface of the semi-lunar cartilage, and the ligamentum mucosa is shown passing upward to attach in the intercondyloid notch. Note also the relation of the subpatellar bursa to the fatty pad, the position and relations of the popliteus tendon, the continuity of the articular surfaces of the femur, and the extent of the synovial membrane with its fatty collection above the patellar articulation and its occasional fringed projection.



FIG. 3.

FIG. 3.—Inner aspect, left human knee joint, showing the internal lateral ligament; the posterior position of the semi-membranosis muscle and tendon; and the suggestive relation of the insertion of the adductor magnus to the upper attachment of the lateral ligament.



which does not communicate with the larger one for the internal condyle and patella.

In recalling the anatomy of the human knee, as it bears upon our present consideration, we find here a large joint, occupying an exposed position, subject to the forces of powerful muscular action and weight bearing, and dependent entirely for its strength upon its ligamentous and muscular attachments. It differs more especially from other joints of the body in the relatively large collections of fat found within its capsule, and from other hinge joints in its lack of the usual bony restrictions to rotation and lateral motion. These factors naturally invite the occurrence of trauma from direct and indirect causes.

The patella is practically its only protection, anteriorly, against direct injury. That direct injury is so commonly followed by acute synovitis in this joint we have to look to the arrangement of the synovial membrane for the chief explanation. Here we have the largest joint cavity in the body, lined by a delicate synovial membrane which is exceedingly rich in blood supply, thus lending itself readily to congestion and excessive secretion. Its surface is increased by its following the irregularities of the fatty pads within the capsule, from the edges of which it projects as synovial fringes. As this membrane extends both above and below the patella, and laterally over the condyles, its exposure to direct injury is evident.

There are three collections of fatty tissue, covered with synovial membrane, found within the capsule of this joint. One is found between the ligamentum patellæ, femur, and tibia, and is a somewhat flattened, triangular, wedge-shaped pad, horizontally placed, with its base anteriorly, and an angle extending to either side. The apex extends up towards, and less frequently attaching into the intercondyloid notch; this apex and the lateral fringes constituting the ligamentum mucosa. A second collection extends

from the lateral angles of this fatty pad, upward on either side of the ligamentum patellæ, to the lateral and inferior aspect of the patella. Its free margins constitute the ligamenta alariæ. The third collection is of lesser extent and is found in the suprapatellar region. The free edges of the mucous and alar ligaments are made up of delicate fringes of synovial membrane, which, on account of their positions are likely to be caught between the adjacent articular surfaces. (Figure 1.)

Indirect injuries are even more potent than direct, in the causation of disturbances in the knee joint, and are certainly more commonly followed by chronic or recurrent trouble. As the lateral and crucial ligaments become relaxed on flexion, it is in this position that twists and lateral strains are prone to occur, resulting in injury to the internal joint structures. If either one of the lateral ligaments becomes stretched or ruptured through strained positions, injury, or disease, the corresponding side of the joint is thus predisposed to injury of its semilunar cartilage, synovial fringes, or fatty tissue.

The greater frequency of derangements at the inner side, as compared with the outer side, of the joint is the result of evident anatomical causes. In 428 cases of recurrent effusion with definite signs of derangement within the joint, recorded by Bennett (2), the inner side was affected about three times as often as the outer. Now in external rotation of the tibia, we find that motion occurs chiefly between the internal condyle and the tibia, motion at the outer side of the joint being checked by the external lateral ligaments, and vice versa for internal rotation. But the crucial ligaments are so arranged that internal rotation is limited by their crossing, whereas in external rotation they are uncrossed. Therefore, external rotation, and consequently motion at the internal condyle, possesses a freedom not obtained at the outer condyle. Thus we find the inner side more frequently damaged than the outer, and, con-

versely, external twists are more commonly productive of trouble than internal twists. There is also a certain degree of control over the outer side of the joint which does not exist at the inner, because of the origin of the popliteus muscle from the external condyle, and its grooving, and consequent splinting, of the external semilunar cartilage.

The internal structures are thus seen to be in such relation to the joint activities as to cause more or less interference with its function, when lacerated, displaced, congested and hypertrophied, or otherwise altered as the result of injuries, twists, ill-directed muscular action or undue ligamentous relaxation. There are abundant instances in literature in which operation has shown these various conditions to be the seat of the trouble in knees that have failed to respond satisfactorily to, or have recurred after, the most diligent and conscientious treatment.

Many of these conditions can be definitely diagnosed beforehand, though there is still much to be learned about the differential diagnosis of the structures involved and the character of the change undergone. This knowledge is to be gained through increased familiarity with the component structures of the joint, in regard to their functions, and their relations to each other during joint activity; greater care in the study of the action of the causative forces; and of the subsequent history of the cases; and closer attention to the physical examination of the normal as well as the injured knee.

In a routine examination of an injured knee both knees should be exposed and corresponding points compared. The presence of fluid is detected by means of the ordinary tests. The tension of the ligaments should be investigated both in the extended and flexed positions, and it is essential that there be complete muscular relaxation during the examination. To secure this relaxation the patient is best placed flat on his back for extension, and seated on a table with the

feet dangling for flexion. The range of rotation, anteroposterior, and lateral motion are then determined. There is considerable variation upon these manipulations in knees that are otherwise normal, though the finding of undue laxity in the deranged knee may be of fundamental importance. Attention should be directed to the prominence of the fatty pad, as determined by the state of the normal depressions to either side of the ligamentum patellæ. The joint should be carefully palpated for areas of thickening of the capsule, synovial membrane, or fat content, nodules, foreign bodies, abnormal semilunar cartilages, etc., and for the effects of motion upon these conditions when found.

For this examination I have found it most convenient and satisfactory to have the patient lying comfortably upon his back with the knees relaxed. The leg is grasped between the two hands just below the joint, and gentle, passive flexion and extension are made, though not sufficiently to drag the heel back and forth, as this brings on muscular contraction. The two thumbs are free to palpate the joint systematically during this manipulation, and very slight changes are thus often easily outlined which otherwise are not detectable. This manipulation is to be repeated with the knee placed in different degrees of flexion. Grating on manipulation, limitation of motion, and tenderness on pressure should, of course, be taken note of.

A summary of forty consecutive cases of traumatic knee affections, personally studied, brings forth some features of practical interest.

In all but three of these cases the disability was referable to the internal joint structures, and in these three it was referred to the tendon of the popliteus, or its bursa. Note the contrast with that of trauma of other joints, in which a simple contusion, sprain, or dislocation are the common results. Recurrent disability, often without apparent cause, was common. Fifteen, or more than one-third of the cases, either came for the treatment of a





FIG. 2.

FIG. 2.—Outer aspect, right sheep's knee (stifle joint), showing the ligamentum patellæ and an external accessory ligamentum patellæ; the tendon of the extensor communis digitorum arising from the antero-external aspect of the condyle; the external lateral ligament and the perineus brevis arising in common from the lateral aspect of the condyle; and the position of the tendon of the popliteus muscle.



FIG. 4.

FIG. 4.—Inner aspect, rigid sheep's knee (stifle joint), showing the internal lateral ligament; the lateral position of the semi-membranosus muscle and tendon; and the fatty collection beneath the patella; note the posterior surface of the latter—smooth, vertically placed, and with no projecting edges; also note the elongation of the condyle and the distinct separation of its articular surface from that of the trochlear surface for the patellar articulation.

recurrence or had a recurrence while still under observation.

Direct injury was not as common a cause as indirect. In fifteen cases the injury was direct, in nineteen due to twists, and in four the condition resulted from unnatural or strained positions. Those due to direct injury mostly ran the usual course of acute synovitis and were cured in two to four weeks. One had recurrent trouble, with thickening of the synovial fringes in the anterior portion of the joint, and two had continued trouble, evidently from injury of the semilunar cartilages. In the cases due to twists thirteen were heard from subsequently, nine of which had recurrences or continuation of the trouble. Those spoken of as due to unnatural or strained positions were all patients whose occupation required their assuming a stooping or kneeling position the greater part of the time, and there was no other accountable cause. In all of them the fatty pad was prominent and thickened and bulged at the sides of the ligamentum patellæ. Fluid was present in only one of these cases, and three of the four are known to have had recurrences of the disability, which consisted of pain, chiefly on extension, and weakness.

In twenty-four cases the onset was sudden, and in five it was gradual. The latter included three of the above cases, and two others in which thickened synovial fringes was the evident cause. Pain was recorded in twenty-five cases, grating on manipulation in eleven, weakness of the joint in eighteen, in many of which this weakness was the chief symptom, and locking of the joint in five. A number of cases were unaccompanied by effusion into the joint, three of which were evidently cases of hypertrophied synovial fringes.

In the differential diagnosis of conditions within the knee joint, producing chronic or recurrent disability, dislocated semilunar cartilages, and foreign bodies are the better known and more frequently described, though often erroneously diagnosed for the

more common condition of hypertrophy of the synovial structures.

The semilunar cartilages may be displaced, lacerated, fractured, or frayed at their edges. The characteristic feature of these injuries is the locking of the joint, which, however, is not necessarily present. The injury is usually a twist, when the leg is flexed near a right angle, the onset is sudden, the locking is complete until relieved by manipulation, and recurrence of the locking is the rule. The internal cartilage is by far the more frequently affected, and the detachment most commonly occurs at its anterior extremity. The injured cartilage may or may not be discovered by palpation. Undue mobility may be detected, or a hard nodular mass may be felt, which usually disappears on extension and becomes prominent on flexion. In half of the cases in which the external semilunar cartilage is involved the symptoms are referred posteriorly to the popliteal space. Relaxation, or rupture of the internal lateral ligament, if present, would contribute to the evidence. Given a firm nodule, laterally placed at the articular junction, we may state as a rule of probability, that if found at the inner side it is a dislocated semilunar cartilage, whereas if at the outer side it is not cartilage, but rather a bursitis or synovitis of the tendon of the popliteus muscle. The latter condition usually results from twists, and produces chronic disability through weakness of the joint, and pain on flexion or rotation. The nodule presents just anterior to the long external lateral ligament, where the tendon grooves the external semilunar cartilage, and is more prominent in semiflexion than in any other position. (Figure 1.) In consistency it is of cartilagenous density when small. The diagnosis ultimately rests upon the fluctuation, which is difficult of detection, except when of large size.

Free bodies may be soft when derived from hypertrophied villi which have become nodular and attached by but a thin pedicle. These usually re-



sult from trauma, but commonly occur in tuberculous synovitis, in which case the evidences of the tuberculous nature are otherwise present and clear the diagnosis. Hard bodies are often associated with rheumatoid conditions, in which case the diagnosis is based on the constitutional condition and the involvement of other joints. The occurrence of multiple cartilagenous free bodies is occasionally encountered, and these cases are probably examples of displacement of cartilage cells in the synovial membrane, which is derived from the same mesoblastic tissue that forms the articular ends of the bones. Trauma, causing the chipping off of a portion of the articular cartilage, is undoubtedly an important cause of the production of free, hard bodies. Barth (3), in experiments on animals, chiselled off pieces from the bones and found that they attached themselves to the capsule, after which the bony portions absorbed and the hyaline cartilage remained; they also became covered with an envelope of connective tissue. The histology of these bodies is identical with that of the cartilagenous bodies removed from the human knees. Virchow stated that loose bodies can and do grow after becoming loose in the joint, being nourished by the synovial fluid. Free bodies tend to shift their position within the joint, and when they present to view or palpation, they are not difficult to diagnose. They may cause locking when placed near the line of articulation, but the locking is not so fixed as in dislocation of the semilunar cartilage, and they frequently slip out again on slight motion without resorting to manipulation. Often they are located in the upper part of the synovial cavity, where they are more readily recognized.

The crucial ligaments, both anterior and posterior, may be ruptured. Pagenstecher (4) reports three cases in which he united by suture ruptured crucial ligaments. Theoretically we should expect this injury to permit of undue anterior or posterior displacement of the flexed knee, depend-

ing upon whether the posterior or the anterior ligament is involved.

Undoubtedly the most common cause of chronic and recurrent disability of the knee is to be found in the production of hypertrophied villous formations of the synovial membrane following trauma. Since these affections of the synovial membrane have passed into the hands of the operating surgeon their role in this connection has become better known. In 1903 Painter and Erving (5) gave a complete account of thirty-three operations for chronic villous arthritis, in which hypertrophied synovial villi were removed from the joints with excellent post-operative results, and many similar reports have appeared in literature. The villi vary in number from a few of considerable size to a dense studding of the membrane with many small papillary growths. The formation of these enlargements is primarily due to congestive thickening, which, on subsiding, is followed by the production of a fibrous overgrowth beneath the synovial membrane. This fibrous tissue has, apparently, a peculiar tendency to overproduction as a result of the stimulus of congestion. A striking characteristic in these cases is that the hypertrophy does not appear until some interval of time has elapsed after the trauma, though the knee has not felt entirely normal during this interval. The fluid may have nearly or entirely disappeared, and it usually returns with the return of the symptoms, which consist of pain, grating, weakness and limitation of motion. The trauma may result from direct external injury, or from internal injury from irregularities of the surfaces of the bones, foreign bodies, etc., acting directly in setting up the primary congestion.

When the synovial membrane covering the fatty pads or their marginal fringes is injured the result is a congestion which, if not quickly subdued, leads to a similar fibrous hypertrophy. The fibrous tissue is here interspersed with the subsynovial fat, forming more or less peduncu-

lated masses of fibrous or lipomatous consistency, depending upon the preponderance of the fibrous or the fatty element. The extent, number and consistency of these enlargements varies in different cases. There may be a single nodule, a diffuse bulging enlargement of the fatty pad, or a marginal row of more or less pedunculated tabs projecting from the ligamenta mucosa or alariæ.

In diasability of the knee following a misstep, a wrench, or a twist, our first thought should be of injury to the fatty tissue or its synovial fringes, they having become engaged and pinched between the articular surfaces, the result of undue rotation or lateral bending of the joint. Relaxation of the lateral or capsular ligaments, from whatever cause, naturally renders the joint more susceptible to this occurrence. There may be a condition of lack of sufficient moisture in some joints, which causes the fringes to become primarily caught and pinched between the bones. General thickening of the fatty pad from pressure from without or, possibly, from pressure of the capsule through muscular action in the cases whose occupation requires constant stooping and kneeling, naturally causes the fringes to be crowded into the joint, and eventually to be hypertrophied. The hypertrophied tabs are here produced gradually, and without any direct sudden injury. An enlarged subpatellar bursa also presses the fatty pad into the joint, and produces the same internal condition. Its detection is to be found in the fluctuation at the sides of the ligamentum patellæ near its insertion. The masses thus formed continue to act as foreign bodies and produce recurrences or exacerbations of the symptoms, which consist of weakness and pain, usually with effusion, and often limitation of motion and catching of the joint.

These swellings can be felt as nodular or cordlike thickenings within the joint, usually at, or just above, the line of articulation, on either side of the ligamentum patellæ, though more commonly to the inner side. They are

most easily palpated upon extension of the knee, and usually disappear on flexion. A single nodule when caught in the joint becomes quite firm and may be mistaken for an injured or displaced cartilage. But in this case the locking will not be so acute and absolute and the nodule will be found to change in consistency, being softer on flexion and firmer on extension. It also becomes more prominent on extension, whereas the displaced cartilage does not alter in consistency, and usually becomes more prominent on flexion.

It may be possible to distinguish the hypertrophied synovial tabs arising from the ligamentum mucosa from those arising from the ligamentum alaria by the position of the nodules, and, furthermore, by the fact that the former are more likely to become pinched, between the femur and tibia, on extension, and consequently to produce pain and weakness on going upstairs, whereas the latter are more likely to become engaged, between the patella and femur, on flexion, and therefore causing difficulty on going down stairs.

The alar and mucous ligaments may also be detached or lacerated by injury when the edges are found, at operation, to be turned over or jagged. There is nothing in the history of these cases, beyond the very sudden onset, to distinguish them from the above. The fatty collection in the suprapatellar region is less commonly involved.

As a further aid in the diagnosis of knee conditions X-ray examinations of the joint, after a distension of the synovial cavity with oxygen, are advocated by Wollenberg (6) and Hoff (7), who claim that a very clear picture is thus obtained, showing displaced cartilages, floating bodies, rheumatoid and other forms of arthritis, proliferation of synovial fringes, and tubercular disease of the bones and synovial membrane.

It is not the purpose of this paper to consider the treatment. The operative aspect, however, deserves brief notice. It is seen that the structures



commonly at fault are such as permit of operative removal or repair without endangering the functions of the joint; their presence, acting as foreign bodies in the joint, tends through repeated traumatic congestion to perpetuate and augment the disability; and they are usually located anteriorly and readily accessible to operative relief. When the cause of the disability is diagnosed beforehand the question of operation rests upon the merits of the case. In obscure cases exploratory incisions should be performed, but not until one is satisfied that the disability is persistent in the absence of adventitious thickening, which may take months to control.

In conclusion I desire to recall that:

Anatomically the human knee-joint is peculiarly predisposed to injury to its internal mechanism.

Clinically traumatic knee conditions resisting conscientious treatment for months or followed by recurrent attacks of disability are almost invariably caused by some derangement within the joint.

Twists are far more likely to produce prolonged or recurrent disability than direct injuries.

The degree of damage to the joint structures is not dependent upon the severity of the trauma.

The synovial structures are most commonly the seat of the disability.

The structures at fault are usually palpable and should be more commonly diagnosed.

These injured structures are usually amenable to operative relief.

Exploratory incision is a proper procedure in obscure cases.

#### REFERENCES.

- 1.—Sutton: *Jour. Anat. and Phys.* Vols. 18, 19 and 20.
- 2.—Bennett: *Lancet*, Jan. 7, 1905.
- 3.—Barth: *Archiv. für klin. Chir.*, 1898. Band. 56, Heft. 3.
- 4.—Pagenstecher: *Deut. med. Wochenschrift*, Leipzig, 1903, 24 p., 872.
- 5.—Painter and Erving: *Medical News*, Nov. 14, 1903.
- 6.—Wollenberg: *Medizinische Klinik*, No. 20, 1906.
- 7.—Hoff: *Berliner klin. Woch.*, No. 28, 1906.

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BRENTWOOD, L. I.

#### DISCUSSION OF DR. HAZEN'S PAPER.

##### *Discussion.*

DR. WALTER TRUSLOW, of Brooklyn, said that the paper just read was a very interesting one; the anatomy of the knee joint had most carefully worked out and the differential diagnosis was so marvelously accurate, that it did not seem possible to discuss is further. He said that he could not help, however, wishing that more had been said about the treatment of these cases. Dr. Hazen had mentioned certain facts about the treatment, but he would like to have him give his opinion along certain lines.

In those cases where a foreign body was found in a joint, especially the so-called rice-bodies, or villous enlargements that could be palpated, in those cases where it was quite reasonable to propose an exploratory operation as being the wisest thing to do, such were the interesting cases and cases regarding which he desired opinions as to the proper course to pursue. If there was a partial severing of the semilunar cartilage, a more conservative course seemed wisest. If the lateral ligament be strained, then, too, a more conservative course of treatment was more to be desired. What did he mean by conservative treatment? In just such cases there was a lack of lateral support; therefore, it seemed wisest that some artificial lateral support be supplied until the sprain was recovered from. This support consisted in the application of a plaster of Paris dressing. In many of these cases the use of a splint or a brace which will permit of free motion antero-posteriorly, that was, by two strips of metal on each side which fixed the thigh, then no lateral motion was possible. There was noted almost at once a freedom from the pain and discomfort, and recovery was very much hastened by such a procedure.

DR. ROLAND HAZEN of Brentwood, L. I., in closing the discussion, confirmed the remarks made by Dr. Truslow; naturally the weak points in the knee required support and along the lines indicated, by the application of

jointed lateral braces which would control lateral motion. Such patients could walk, which they could not do if support was given by means of

bandages or knee corsets. The treatment was such a large subject that he did not intend entering upon its consideration at all in his paper.

## TREATMENT OF GONORRHOEAL EPIDIDYMITIS BY SURGICAL OPERATION, WITH REPORT OF SEVEN CASES\*

By HENRY H. MORTON, M.D.

Clinical Professor of Genito-Urinary Diseases in the Long Island College Hospital; Genito-Urinary Surgeon to the Long Island and Kings County Hospitals and the Polhemus Memorial Clinic.  
BROOKLYN, NEW YORK.

THE great majority of cases of inflammation of the epididymis, due to extension of the gonorrhoeal inflammation from the urethra through the vasa deferentia, go on to more or less complete resolution under an expectant treatment. The resolution, unfortunately, is often not complete, and a deposit of fibrous tissue is left at the head of the epididymis which compresses its tubules, blocking the passage and preventing the exit of the spermatozoa which are formed in the testicle. In consequence, sterility of the testicle on that side results, and in case of a double epididymis, complete sterility is often the outcome.

While the pain in most cases of gonorrhoeal epididymitis is usually controlled by hot applications and rest in bed, it is not very unusual to meet with a case where the inflammatory reaction is so severe that in spite of large doses of opium the pain is unbearable. The temperature runs to 103 or higher, and while the inflammation gradually subsides after a period of great suffering for the patient, the subsequent function of the testicle on the affected side is usually permanently destroyed.

It is to this class of severe inflammation of the epididymis that the operation about to be described is applicable.

The treatment of gonorrhoeal epididymitis, by incision and puncture is by no means a new idea. It was done by Pirogoff in 1852, and also by Vidal de Cassis, and, in 1864, H. Smith reported in the *Lancet* one thousand

cases of epididymitis treated in this way.

The operative treatment seems then to have fallen into entire disuse, except in cases where a considerable quantity of fluid accumulated in the sac of the tunica vaginalis. In these acute hydroceles, it has been customary to aspirate or draw off the fluid with a trocar, and the relief of the tension was always followed by great lessening of the pain.

To Francis R. Hagner,† of Washington, belongs the credit of developing and applying the operation which, in his hands and that of the writer, has lessened the severity and shortened the course and probably preserved the integrity of the testicle in the severest forms of gonorrhoeal epididymitis.

As before stated, it is necessary, only in the most exceptional cases, where the pain is excessive and the temperature runs high; the others are amenable to ordinary medical treatment.

The operation is performed as follows:

The patient is prepared for a major operation and then anesthetized. The use of cocaine is not practicable because of the pain occasioned in handling the parts after the initial steps.

An incision is made through the skin of the scrotum, exposing the tunica vaginalis, which is opened at the junction of the epididymis and testicle. The fluid contained is evacuated, and the enlarged epididymis examined

\* Read before the Associated Physicians of Long Island, January 29, 1910.

† Transactions, American Association of Genito-Urinary Surgeons, 1907.



through the wound. The testicle and epididymis are delivered through the wound and enveloped in warm towels. Multiple punctures are made through the fibrous covering of the epididymis with a tenotome, especially over the portions where the enlargement and thickening is greatest. The knife should penetrate the thickened fibrous capsule and enter the infiltrated connective tissue; a decided lessening of resistance is felt after the knife has penetrated the thickened covering of the epididymis.

If pus is seen escaping from any of the punctures, the opening should be enlarged and a small probe inserted in the direction from which the pus flows. The insertion of a probe is attended with less danger of injuring the tubes of the epididymis than if a knife were used.

After the small abscess has been explored with a probe, the pus should be evacuated by light pressure over its surface, and its cavity washed out with a fine pointed syringe and a solution of bichloride of mercury 1 to 1000, followed by a normal salt solution.

The incision in the tunica vaginalis should be lightly closed with a running cat-gut suture; a cigarette drain of gauze is then applied over the incision, and the skin brought together by a subcutaneous suture. Gauze dressings are applied and the part supported by a wide T bandage.

The second day after the operation the gauze drain is removed and the wound redressed, and, as a rule, the patient is allowed to get out of bed and walk about a week after the operation.

In several of the cases the writer operated upon, the testicle and sac, instead of being freely movable, were bound firmly to the scrotum by means of firm, newly formed adhesions.

Invariably the sac of the tunica vaginalis has been filled with enough fluid to cause a good deal of distension.

In one case there was but little free fluid, the entire sac being filled with a sort of false membrane or effusion of plastic lymph.

The spermatic cord was thickened and the epididymis very much enlarged, more especially at the head. The engorged vessels could be seen coursing over the epididymis, and its color was of a dark purple; occasionally the pressure from the distension was so great that a white bloodless area the size of a finger nail could be seen at its extremity.

In four instances collections of pus, two of which contained gonococci, were found in puncturing the epididymis.

The finding and evacuation of collections of pus in the epididymis is a sufficient warrant for the performance of an operation, for it is only following out the surgical axiom of giving free vent to collections of pus which are closed up. The operation also clears up an erroneous impression which has prevailed, to the effect that gonorrhœal epididymitis did not suppurate and only caused an adhesive inflammation.

In all the writer's cases the pain was relieved at once and was never felt again. A drop in the temperature almost to the normal point occurred immediately, and the temperature soon became normal and remained there.

In all the cases, but two, the patient was able to get out of bed and walk about the ward, without discomfort, in one week's time.

The time required for an entire return of the testicle to its normal size, and the disappearance of all traces of infiltrate in the head of the epididymis, varied considerably. Two cases were lost sight of, but with the others it required respectively five, six, eight and ten weeks for the parts to be entirely restored to normal conditions; but it must be remembered that these cases were all exceptionally severe, and that resolution would have been still more delayed under an expectant plan of treatment.

In closing I wish to express my thanks to Dr. J. Sturdivant Read for his careful observations of the post operative course of these cases.

| CASE.                                        | 1                                                                                                                                                                                                            | 2                                                 | 3                                                                                                                                                                                                                                                                                                                    |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Previous attacks of epididymitis.            | Yes.                                                                                                                                                                                                         | None.                                             | None.                                                                                                                                                                                                                                                                                                                |
| Duration of gonorrhœa.                       | Never had any.                                                                                                                                                                                               | 3 months.                                         | 8 weeks.                                                                                                                                                                                                                                                                                                             |
| Duration of epididymitis prior to operation. | 10 days.                                                                                                                                                                                                     | 2 months, 3 exacerbations after seeming cure.     | 5 days.                                                                                                                                                                                                                                                                                                              |
| Character of pain.                           | Intense and constant, dull throbbing.                                                                                                                                                                        | Dull ache.                                        | Very severe.                                                                                                                                                                                                                                                                                                         |
| Character of pain on palpation.              | Increased.                                                                                                                                                                                                   | Tender.                                           | Severe.                                                                                                                                                                                                                                                                                                              |
| Size and appearance of scrotum.              | Much swollen and inflamed.                                                                                                                                                                                   | Not actively inflamed, medium degree of swelling. | Large, tense.                                                                                                                                                                                                                                                                                                        |
| Induration of cord and epididymis.           | Marked.                                                                                                                                                                                                      | Moderate amount.                                  | Great.                                                                                                                                                                                                                                                                                                               |
| Appearance of epididymis at operation.       | Inflamed and dark, thick blood.                                                                                                                                                                              | Congested and indurated.                          | Intense degree inflammation.                                                                                                                                                                                                                                                                                         |
| Condition of tunica vaginalis.               | Serum and lymph.                                                                                                                                                                                             | Small amount serum.                               | Distended 3iv serum.                                                                                                                                                                                                                                                                                                 |
| Pus and its location.                        | None.                                                                                                                                                                                                        | None.                                             | 3ii in cord.                                                                                                                                                                                                                                                                                                         |
| Pain after operation.                        | None.                                                                                                                                                                                                        | Ceased 24 hours post-operation.                   | 12 hours. None since.                                                                                                                                                                                                                                                                                                |
| Maximum temperature before operation.        | 103°.                                                                                                                                                                                                        | 102°.                                             | 102°.                                                                                                                                                                                                                                                                                                                |
| Maximum temperature after operation.         | 101°, day after that normal and remained so.                                                                                                                                                                 | 99.5°.                                            | 104° a. m.; normal p. m.                                                                                                                                                                                                                                                                                             |
| Gonococci in epididymis.                     | None.                                                                                                                                                                                                        | None.                                             |                                                                                                                                                                                                                                                                                                                      |
| Gonococci in tunica vaginalis.               | None.                                                                                                                                                                                                        | None.                                             |                                                                                                                                                                                                                                                                                                                      |
| Completion of resolution.                    | 10 days after operation testicle large but soft and painless.                                                                                                                                                |                                                   |                                                                                                                                                                                                                                                                                                                      |
| Discharged from bed.                         | In one week.                                                                                                                                                                                                 | On 8th day.                                       | In 7 days.                                                                                                                                                                                                                                                                                                           |
| Result.                                      | Epididymis split and examined for foci of tuberculosis. None found and wound sewed. Pain ceased 12 hours after operation, without recurrence. Temperature normal 3 days after operation and remained so. (*) | No pain since operation.                          | 10 days after operation testicle and epididymis showed no sign of softening. No pain. In hospital 3 weeks. Rested at home 1 week. Went to work; relapse in 3 days. Returned to hospital; pain, tenderness and swelling marked. In bed with hot applications and ichthyol 6 weeks before resolution was complete. (*) |



| 4                                                                                   | 5                                                                                                                          | 6                                                                                                                      | 7                                               |                                                                                                                                         |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| None.                                                                               | None.                                                                                                                      | None.                                                                                                                  | None.                                           | ( <sup>1</sup> ) At time of discharge wound healed, testicle and cord not tender. Still enlarged about one-third of size on admittance. |
| 4 years ago complicated by gen. rheumatism.                                         | 20 days.                                                                                                                   | 1st attack, 5 weeks.                                                                                                   | 3 weeks.                                        |                                                                                                                                         |
| 5 days.                                                                             | 6 days.                                                                                                                    | 12 days, which improved; then 2 days before operation became suddenly swollen with severe aching pain.                 | 6 days.                                         | ( <sup>2</sup> )                                                                                                                        |
| Very severe.                                                                        | Very severe.                                                                                                               |                                                                                                                        | Burning pain, very severe, progressively worse. |                                                                                                                                         |
| Tenderness marked.                                                                  | Tender and lancinating.                                                                                                    | Tenderness and boggy feeling.                                                                                          | Tenderness marked, radiating along cord.        | ( <sup>3</sup> ) 3 months after original operation, testicle and epididymis almost normal. Continues painless. No urethritis.           |
| Moderate amount enlargement.                                                        | Very large, almost bluish red.                                                                                             | Very large, reddish blue and tense.                                                                                    | Very large edematous, bluish.                   |                                                                                                                                         |
| Considerable.                                                                       | Considerable.                                                                                                              | Considerable.                                                                                                          | Considerable.                                   |                                                                                                                                         |
| Congested, whitish at one end.                                                      | Intensely congested.                                                                                                       | Immensely swollen, one tense white area at head.                                                                       | Head bulging and whitish.                       |                                                                                                                                         |
| Distended with fluid.                                                               | Lymph, very little free fluid.                                                                                             | About 3viii clear serum.                                                                                               | Distended with serum.                           |                                                                                                                                         |
| Slight amount in head of epididymis.                                                | None.                                                                                                                      | One drop in head of epididymis.                                                                                        | 5iss in head of epididymis.                     |                                                                                                                                         |
| 8 hours.                                                                            | 24 hours, considerable.                                                                                                    | 12 hours; completely gone in 24 hours.                                                                                 | Very little for 1 day, practically none since.  |                                                                                                                                         |
| 104.2°.                                                                             | 104°.                                                                                                                      | 104.2°.                                                                                                                | 103.5°.                                         |                                                                                                                                         |
| 101°.                                                                               | 101°. Temperature normal 4th day after operation.                                                                          | 101°.                                                                                                                  | 99°.                                            |                                                                                                                                         |
| Yes.                                                                                | None.                                                                                                                      | None.                                                                                                                  | None.                                           |                                                                                                                                         |
| None.                                                                               | None.                                                                                                                      | None.                                                                                                                  | None.                                           |                                                                                                                                         |
| 10 weeks.                                                                           |                                                                                                                            | Almost in 8 weeks.                                                                                                     | In 4 weeks and though some infiltrate remains.  |                                                                                                                                         |
| 6 weeks.                                                                            | 1 week.                                                                                                                    | 14th day.                                                                                                              | 4th day.                                        |                                                                                                                                         |
| Never any pain. Resolution very slow. Ichthyol 25% and moist heat used continually. | No pain 12 hours after operation. Before this, pain for 2 days so severe that opiates did not control. No subsequent pain. | 2 months after operation. Never any return of pain or swelling. Epididymis soft and small, almost normal to palpation. |                                                 |                                                                                                                                         |

# OBSERVATIONS ON THE USE OF FORMIDINE IN CHRONIC SUPPURATIVE INFLAMMATIONS OF THE MIDDLE EAR, COMPLICATED WITH DEAFNESS.

By JOHN C. WARBRICK, M.D.

CHICAGO.

IT IS not always easy to get a substance that can be used with success for insufflation of the ears in chronic purulent otitis media. I have been treating many cases of deafness of varying duration attended with offensive discharges from each ear of varying grades of severity, using various substances by insufflation into the ears to destroy the bacteria and check the discharge, but without success. After numerous trials I came to the conclusion that nothing was so useful as a new antiseptic called Formidine, which I have found satisfactory and have continued to rely upon ever since; especially in the difficult cases that come to my office with a profuse discharge. If there is much congestion of the tympanic membrane or other parts, I first use a solution of Adrenalin chloride, 1:1000, which is applied directly to the part to reduce the redness, relieve any pressure-tension for the moment and afford a better idea of the situation.

In these days of scientific progress any suggested improvement on older means or methods is always welcome, particularly when it comes from a reliable source, after careful tests. Formidine, the subject of this paper, is an excellent substitute for iodoform, the disagreeable and suggestive odor of which is well known, and need not be mentioned here.

Formidine is a new synthetic preparation, methylen disalicylic acid iodide. It can be used either alone or in combination with other powders, or in suspension with glycerine, and may be applied to any part whence pus discharges, as in the sphenoidal sinus where I have used it, and in abscess of the antrum of Highmore, etc. The following histories of ten difficult cases selected from many that I have had to treat, prove the value of this

new agent. A number of times the necessity of doing the radical mastoid operation has been obviated by control of the discharge and recovery of hearing.

CASE 1.—O. C.—, a schoolboy, aged 13 years, was brought to me May 15, 1906. He complained of having had catarrh from childhood and trouble with his ears for twelve years. Had measles and scarlet fever.

Discharge from both ears with inflammation and tenderness; nose discharges all the time and the patient easily "takes cold" and coughs up mucus.

Treatment consisted of spraying the nose and throat each morning. The ears were regularly cleansed with a warm solution of sodium bicarbonate, then after drying, powdered formidine was blown into the canal and a piece of cotton inserted. This was done for nine consecutive treatments with good results.

CASE 2.—M. C. A., aged 30 years, called to see me January 11, 1907, for deafness and a discharge from both ears that had continued for almost a year. An abscess burst in the left ear and caused deafness.

There was intense congestion of the tympanic membrane and mucus membrane in each ear with ringing all the time and sensitiveness. He feels as if his head would "split." Has had catarrh for a long time and easily "takes cold." His condition is getting worse all the time.

Internal treatment was employed in this case with spraying of the nose and throat. Adrenalin chloride solution, 1:1000 was used in both ears to relieve the congestion, and afterwards warm boracic acid solution to cleanse the canals, then powdered formidine was insufflated and cotton put in finally. This plan of treatment was repeated ten times and was all that was required.

CASE 3.—P. C.—, aged 21 years, in business, on 26th of July, 1907, said he had been bothered with deafness and foul-smelling discharge from both ears for about twenty years and, although he had plenty of treatment, received no benefit. Went to Denver and grew worse; is run down and losing weight; feels weak and is despondent; coughs up mucus and easily "takes cold"; tried massage and diet but with no benefit.

Thorough cleansing of the throat in this case was necessary at each treatment along with therapeutic and hygienic measures.



The ears were swabbed out from time to time with a solution of boracic acid and alcohol and packed with formidine and boracic gauze left in, with good results.

Altogether 43 visits were necessary, the hearing becoming almost normal and the discharge much less.

CASE 4.—Mr. O. W. H.—, aged 65 years, visited my office October 1, 1907, saying he was nervous, depressed and had evil forebodings. Hearing has been getting worse though he had had some deafness for almost fourteen years; tongue coated; loss of appetite and decrease in weight of 20 pounds; rheumatic pains; voice weak and speech impaired; wax in each ear with inflammation and ulceration; ringing all the time; in the right ear a small sac of blood obstructed the passage along with the discharge.

Internal treatment was also necessary in this case for the nervous condition. The wax was removed by injections of hot boracic acid solution and forceps. The sac of blood was opened and passage cleansed of blood, wax and pus; then formidine powder was blown in up to the drumhead and packed with gauze, being left until the next application.

A good recovery was made.

CASE 5.—Mr. H. N.—, aged 44 years, on the 20th of December, 1907, complained his health was not good; "takes cold" easily and his nose "runs" all the time; coughs up mucus tinged with blood occasionally; nose has bled at times; has pain in and behind left ear with deafness and a discharge of pus of three weeks' duration; hears bells ringing and one ringing louder than the others all the time; also hears a fluttering noise, singing and rushing of water and the puffing of a locomotive; a small perforation at lower part of drum; intense congestion of tympanic membrane and near parts with great tenderness and fullness in the ear.

Solution Adrenalin chloride, 1:1000 was used to reduce the congestion after cleansing with hot boracic acid solution and drying. The Adrenalin was applied on cotton to the drum of the ear. Formidine in glycerine was then passed well into the ear on cotton. This treatment was continued ten times with good results. Tonic treatment internally was also given.

CASE 6.—I. N.—, a child four years old, was brought to my office February 11, 1908. For four weeks both ears had been discharging a foul-smelling, yellowish and thick substance. Pain behind right ear over mastoid; ears were sensitive—small pin-head perforations in each membrane; face pale and nose discharges; coughs some; not much deafness.

The ears were syringed with warm boracic acid solution from time to time, then cleansed with a solution of sodium bicarbonate and alcohol passed in on cotton. After this a weak solution of acetate of lead was applied, then powdered Formi-

dine was insufflated freely and the ear was packed with cotton. In two weeks the discharge was stopped.

CASE 7.—Mr. C. L.—, aged 33 years, consulted me on October 21, 1907, for deafness which bothered him for nineteen years and began from an attack of scarlet fever. When a boy a heavy discharge took place; ringing in ears all the time; takes cold easily; tongue coated and stomach is troublesome; becomes depressed at times; has nasal catarrh and coughs up mucus; physical state bad; left ear examination shows thinness of tympanic membrane and white spots on it; wax present. Right ear, wax in ear; tympanic membrane partly destroyed, inflammation and ulceration.

In this case the nose and throat were sprayed with an alkaline solution; internal tonic treatment was given and the stomach regulated; the ears were cleansed with boracic acid solution and wax removed; in right ear insufflation of Formidine and cotton packing.

After eleven treatments only slight improvement took place.

CASE 8.—Mr. J. A. K.—, aged 51 years, came to my office May 20, 1907. He complained of a ringing in his ears for some time and deafness of about 25 years' duration. Had earache as a child and scarlet fever, but no bad after-effect; sometimes rattling in the ears like escaping steam; confusion in hearing when several are talking; has nasal catarrh and always coughs up mucus.

Right ear, wax, congestion of tympanic membrane and a hair embedded in upper part of tympanic membrane.

Left ear, wax, congestion and some relaxation of tympanic membrane; arterial tension and some toxemia.

The treatment consisted of rectifying the nasal and pharyngeal conditions by sprays and operative measures, reducing arterial tension and correcting toxemia. Locally the ears were cleansed with sodium bicarbonate and alcohol solution and the wax was removed. Solution Adrenalin chloride, 1:1000, relieved the congestion, while Formidine powder was lastly blown in. Thirty-six treatments were given with improved hearing.

CASE 9.—Mr. H. D.—, aged 78 years, retired from business, called to see me February 21, 1908. He complained of a discharge from his right ear for three weeks with slight deafness; discharge watery and yellowish; mucus membrane of ear peels off and is inflamed and tender; has a buzzing sound in ears; is nervous and worries a good deal; slight catarrh of nose and throat; easily takes cold; eczema of auricle.

Lead lotion was prescribed for the eczema which cleared up nicely. The nose and throat were sprayed and some internal medication given. The ear was syringed out with boracic acid solution, then

cleansed with sodium bicarbonate and alcohol solution and dried. Formidine powder was insufflated in the ear up to the drum and kept in by cotton packing. After ten treatments I found the discharge had stopped.

CASE 10.—Mr. H. H.—, aged 28 years, complained on February 14, 1908, of being deaf for twenty years and had catarrh for thirteen years. When the trouble began as he says he was lying in bed one morning and suddenly heard a sound in his ear like the puffing of a locomotive, then he noticed a roaring noise. Has been in the habit of swimming under water a good deal. Tried various treatments, but they were of no use. Left ear—relaxation of tympanic membrane which moves in watery mucus with congestion. A small abscess on the upper part of the membrane with some discharge from ear.

Right ear—same as left.

Nasal and pharyngeal catarrh; coughs up mucus all the time and easily "takes cold"; physical condition bad; the nose and throat were treated by sprays and operative measures were necessary, along with careful dieting, more exercise and less smoking, to regulate the physical conditions such as excessive flesh.

The ears were swabbed out with boracic acid solution with a few drops of alcohol added. An astringent solution of sulphate of zinc, 10 grains, to 1 ounce of water, was then applied on a swab close up to the drum after which Formidine powder was blown into the canal and kept there by cotton. After fourteen treatments there was not much improvement in this case due to the patient's impaired physical condition.

306 East 43d Street.

## TUBERCULOSIS OF THE PERITONEUM, UTERUS AND ADNEXA\*

By FREDERIC J. SHOOP, M.D.

BROOKLYN, NEW YORK.

Chief Gynecologist of the Samaritan Hospital.

**T**UBERCULOSIS of the female organs of generation associated often with the same affection of the peritoneum occurs with sufficient frequency to call the attention of the profession generally to it as an important factor in the causation of the various symptoms for which women seek their family doctor for relief. And inasmuch as the subject of Tuberculosis is at the present time uppermost in the minds of the laity as well as of the medical profession, and every effort is being made to find some means of stamping out the great white plague, it ought not to be out of place for the Brooklyn Gynecological Society to spend a little time in considering the ravages of the disease on the women who come under the notice and care of the Gynecologist.

Can we not find some way of recognizing these cases sufficiently early to enable us to use the proper remedy for radical cure, or in inoperable cases, give the kind of attention which will arrest the progress of the disease and prolong the life of the patient? Up to the present time the most of these

cases have been recognized only at autopsy or when operating for some other form of pelvic trouble, or on exploratory incision for diagnostic purpose; some few having been recognized as such previous to section. Many cases even after opening the abdomen have in the past been overlooked, as in some stages of miliary tuberculosis, where the tubercles are all microscopic in size, or in the early stage of the chronic diffuse tuberculosis in which the gross appearance presents nothing striking to the naked eye which would differentiate it from inflammation from other causes. But by more careful observation and with the aid of the microscope in examining for tubercular tissue or for the tubercular bacillus, several observers have shown by their statistics that in salpingitis alone, out of all cases in which the tubes have been removed for all kinds of diseases, 8 to 18 per cent. of the tubes proved to be tubercular, an average of about one in seven, surely a statement which should cause us to pause and consider! Again, in 500 autopsies at a consumptive hospital 8 per cent. had tuberculosis of the genital organs.

\* Read before the Brooklyn Gynecological Society, December 3, 1909.



The disease may attack any individual at any age, but more frequently between the ages of twenty and forty the period of the height of sexual activity and more frequently in married women. As to the relative frequency of the organs attacked, 90 per cent. are tubal, either alone or combined with one or another of the organs. In 40 per cent. the uterus is affected alone or in combination. The organs attacked in order of frequency are the tubes, the corpus uteri, the peritoneum, the cervix uteri, the ovary, the vagina, the kidneys, and the bladder. This disease of the bladder is very infrequent and most usually secondary to a focus far advanced elsewhere.

I shall confine the scope of this paper to the progress and treatment of the disease as it appears in the peritoneum, uterus and adnexa. Tuberculosis of these tissues may be primary or secondary, most frequently secondary, and of the peritoneum it is always secondary, either preceded or followed by the infection of the generative organs. The invasion may be from within or from without; if from within it is usually, if not always, secondary; if from without, nearly always primary. It may be introduced from without by unclean instruments, douche tube, or examining finger, or in coitus with a tuberculous male consort, or by perverted sexual gratification with a tuberculous lesbian tribadist or cunnilinguist. The disease introduced by any of these means may fasten itself at any point from the portia vaginalis to the peritoneal cavity, most frequently passing through the lower portions and infecting the endometrium without infecting the other parts in transit, rarely extending as far as the isthmus of the tube without infecting the uterus, frequently the invasion stops at the cervix.

From within, and most cases are from within, the infection of the generative organs may be from the peritoneum, or from infected lymphatics, from tubercular ulcer of the intestine which either allows the bacillus to float down to be picked up by the tube without infecting the peritoneum in

transit or becomes agglutinated to one or another of the organs and involves it in the inflammatory exudate; or the organs may be involved as a part of a general miliary tuberculous. All authors speak of the probability of the bacillus being carried to different organs or other secondary foci through the medium of the blood, but I cannot conceive how this can be done except in advanced stages of the disease at some point where the degeneration or ulceration has literally eaten its way through the wall of a good-sized vein, pours the bacilli into the blood current and sends them on to, principally the liver and kidneys.

One observer, Lasker, examined the blood of 68 cases of advanced tuberculosis and found the blood free from contamination, except in one case, and that one died in 19 hours after his observation. Nearly all agree in saying that infection from within is usually secondary, but may occur as a primary invasion, yet do not explain how it may happen as a primary. The only way I can see is that the bacillus may be ingested with the food in an individual who is free from tubercular infection, pass through a typhoid ulcer or a benign ulceration, float down into the cul-de-sac and be picked up by the tubes without infecting the peritoneum.

Any infection from the blood and the lymphatics must be secondary to a focus situated elsewhere from which such channels pass it on.

All authors speak of at least three forms of the disease,—1. Miliary. 2. Chronic Diffuse or Caseous. 3. Chronic Fibroid. Some name seven varieties of tubercular peritonitis alone, an entirely unnecessary confusion of distinctions; they are all one and the same disease, and the different appearances are merely different stages of the disease in advancement or arrest of its progress; and that condition known as chronic fibroid or the cicatrized or calcified condition is only nature's attempt to block out or seal up the disease as arrested, which, if successful, constitutes a spontaneous cure. I find one or two recent authors holding this view as instanced in

Klebb's work on Tuberculosis in speaking of the classifications, "It is safest to regard it as a widely varying manifestation of one process, whose severity and extent are dependent on many factors," and H. W. Longyear in an article written in 1904 made this statement, "All the varieties are simply different stages, one following the other with greater or less rapidity, depending on the power of resistance of the individual. In some the disease may not pass the first stage, etc." In fact, in operating we frequently see both miliary and chronic diffuse tuberculosis in the same case and occasionally all three varieties have been found, I will not enter into the pathology more than to say that at first the invasion is in the form of minute rounded pearl-like tubercles, varying in size from those which can only be seen with the microscope to those of the size of a split pea, scattered over the mucosa or serosa, usually situated superficially just beneath the epithelium. At first the tubercles are all invisible to the naked eye, gradually they increase in size as the disease advances, become more elevated and now assume a spheroidal shape of gray translucent color with yellowish white to yellow center and finally becoming opaque. Some of these tubercles contain amorphous granular material, some contain epithelial cells, some pus and others a mixture of all; and frequently numerous tubercular bacilli are found. As the disease advances into the caseous or chronic diffuse condition it invades the membrane, the modules enlarge and become flattened, irregular ulcers may form with elevated edges which are undermined by the advancing tubercular disease, many nodules break down and coalesce into larger masses and then invade the muscular tissue, finally replacing all the physical elements of the organ affected.

Or the disease may be arrested at any point in any of these stages of the disease and calcareous or chronic fibroid degeneration set in, calcifying the affected areas or infiltrating or replacing the tissue with a fibrous connective tissue, thus bringing about the spontaneous cure before referred to.

The cheesy masses in the actively degenerative condition contain a tubercular tissue composed of a reticulated delicate and transparent basement membrane which becomes opaque and denser as the disease advances. This membrane contains nodules of indifferent nucleated round cells with occasional multinuclear giant cells and usually numerous tubercular bacilli scattered throughout, but occasionally the bacillus cannot be demonstrated. If the disease is active on a mucous surface, the membrane pours out a great amount of cheesy material which later becomes muco-purulent and we have a pyosalpinx or a pyometra according to the cavity affected.

If it is the peritoneum which is attacked we may or may not have an accumulation of clear, turbid, sanguineous or sanguino-purulent fluid.

*Diagnosis.*—Here comes our trouble. The patient does not walk into the office with a diagnosis ready made for corroboration, in fact, the early invasion is seldom, if ever, brought to our notice. Pain which is a most prominent factor in sending the patient to us for other difficulties, is tardy in making its appearance and seldom becomes prominent enough to compel the tubercular patient to ask for relief until much advance has already been made and may even then be passed over as of no great importance; but a painful menstruation in any woman with associated intermenstrual pelvic pain, pain when the bowels move, and with progressive increasing constipation ought to cause the physician to look into matters with the possibility of tuberculosis in his mind, and a thorough examination to be made. In the early stages nothing can be felt by the examining finger; later enlarged tubes, enlarged or irritable ovary may be outlined, yet these are not necessarily indicative of tuberculosis. The cornu-tubal shoulder-like thickening can sometimes be made out in the ascending tuberculosis and helps in making a diagnosis, especially if the cervix has been infected on the way up and shows the tubercular infiltration or an erosion. This erosion may



be mistaken for cancer, but microscopic examination of a piece of the tissue or of the secretion will help out; also the fact that the ulcer is less likely to bleed, the odor not so foul and little or no pain localized near the crevix. The patient may come to you because of sterility, scanty menstruation, frigidity with reference to the marriage relations, for some discharge, a vague uneasiness in and around the ovarian region, a tenderness on the right side making her think of appendicitis, or for ascites. Most all of these are symptoms of any form of inflammation. If the patient is unmarried and a virgin, the chances are 90 per cent. in favor of a tubal enlargement being tubercular, provided that gonorrhoeal infection can be excluded, especially if the pain is not markedly severe; and under the same conditions, the chances are nearly the same for an endometritis being tubercular.

In the married women we will have to depend more upon such things as, a family history of tuberculosis, or tuberculosis in the husband, tuberculosis in some other part of the body, and microscopic examination of the secretions and scrapings from the uterus, to help us out in the diagnosis; and these are available mostly only in the more advanced cases. One or two of the more recent authors on general tuberculosis mention the use of the tuberculin test as a confirmatory diagnostic agent. This agent may therefore be of value to us in determining an early invasion where we have only a suspicion that trouble of that nature is developing. There are several preparations on the market supplied by the drug houses for this purpose, sealed in tubes in the proper dosage ready to use and with full directions,—one made after the formula of Morro to be rubbed into the clean, sound skin, covering with a gauze and oilskin dressing. Another which is probably more practical and easy of application is made after the formula of Von Pirquet (old tuberculin 1 part, a 5 per cent. solution of carbolic acid 1 part, and normal salt solution 2 parts); two or three drops are placed on a scarified surface, such as

is usually made for an ordinary vaccination, allowed to stand for a minute or two, then wiped off and a protective covering placed over it. The preparation for the eye test may be more reliable in its accuracy but is more severe in its reaction and would arouse opposition to its general use. While an occasional test may show in a patient having an especially irritable skin, a reactionary rash somewhat simulating the regulation one in which the presence of the disease cannot ultimately be demonstrated, yet the absence of a reaction may be taken as a pretty sure evidence that no tuberculosis exists. An occasional failure therefore should not cause us to throw aside so valuable an aid. Of course the tuberculin test only indicates the presence of a focus somewhere indefinitely located, but, given a positive reaction in a case with some vague pelvic trouble, we are pretty sure to know what that trouble is.

*Treatment.*—Being assured that there is tubercular disease in the intrapelvic tissues or organs, or knowing there is some disease there and only strongly suspecting it to be tubercular, exploratory incision should be made to complete the diagnosis, with the understanding that removal of the diseased organs shall be done if warrantable. If the trouble is in the endometrium only, and so determined, abdominal section need not be done but merely give the uterus a thorough curettage, swab with iodine or an iodoform emulsion and establish free drainage; often this is sufficient to bring about a cure and does not militate against a subsequent hysterectomy in case the disease is not conquered. The mere opening of the abdomen, airing the cavity and instituting drainage is often sufficient to bring about a cure of miliary tuberculosis of the peritoneum.

In salpingitis both tubes are, as a rule, affected, and both should be removed; often only one ovary is diseased and should be removed, the other one may be left, if apparently healthy, unless the patient is at or near the menopause, when, in my judgment, both should be removed to-

gether with the tubes. Some think a panhysterectomy should always be done if both tubes are affected, but if the uterus is only slightly infected or apparently normal it may be safely left and curetted and sawbbed as before described. These are matters for individual judgment.

The presence of an advanced focus elsewhere is usually contraindicated to operative procedures, and only palliative and general tubercular treatment can be used together with the usual hygienic, climatic and nutritive measures which should be employed in all cases, whether operative or not. However, in these advanced cases, if the local process is causing more irritation and weakening the patient more than would be caused by removal, such removal might be considered as a part of palliative treatment, a curettage or amputation of the cervix, etc.

Medicinally, Ferrier claims to be getting excellent results by limiting the ingestion of acid with the foods and using a powder three times a day composed of calcium carbonate gr. viii, tribasic calcium phosphate gr. iii, and magnesium calcined gr. i, to promote calcification.

*Prognosis.*—The prognosis of intrapelvic tuberculosis is bad, especially in advanced cases. If, however, we could see our cases in the early stages, whether primary or secondary, provided the original focus in the secondary cases is under control or not far advanced, removal of the offending organs gives us our best percentage of cures. At present the rate of mortality is as high or higher than that of cancer.

230 St. James Place.

## CANCER OF THE UTERUS.\*

By WALTER B. CHASE, M.D.

### *Abstract of Paper.*

(A) The author affirms his approval of early and complete extirpation of the uterus for malignant disease.

(B) Where this has been refused, or where the advance of the disease renders such efforts hopeless or impossible, he recommends palliative treatment for the relief of the patient.

(C) Such treatment consists of the use of the thermo-cautery—after the Byrne method—or some modification of it, in removing as far as practical all the diseased structure, supplemented or preceded by the X-ray and the use of radium, radium being the more valuable.

(D) Most cases are greatly relieved of their suffering and systemic infection correspondingly diminished.

(E) In certain instances recovery has followed in cases regarded as altogether hopeless, three cases of which were reported.

(F) Absolute cleanliness by daily dressing of the parts demonstrates the diminished degree of suffering compared with cases in which it is not supplied.

(G) The neglect of such treatment, apart from the use of opiates, as will afford the patient the longest immunity from suffering, is not in keeping with the universally recognized duty of the physician and surgeon.

\* Read before the Section of Obstetrics and Gynecology of the American Medical Association, Atlantic City, June 10, 1909.



## LONG ISLAND MEDICAL JOURNAL

A Forum for the Discussion of all Topics involving the Medical Profession and especially that of Long Island.

EDITOR-IN-CHIEF

PAUL MONROE PILCHER, A.M., M.D.

ASSOCIATE EDITOR

JAMES MCFARLANE WINFIELD, M.D.

EDITORIAL OFFICE:

386 GRAND AVENUE, BROOKLYN, N. Y.

Further Information on advertising page 3

MARCH, 1910.

### MEDICAL SOCIETY OF THE COUNTY OF KINGS.

**D**R. JOHN C. MAC EVITT, the President of the County Society, is devoting himself with a great deal of energy toward making the present year one of activity in all matters pertaining to the Society.

In February he addressed a letter to the members of the Society stating his aims. His ambition is to increase the membership so that all of the physicians of the county shall be able to work together and secure the proper administration of medical affairs. The President is devoting his special attention to the character of papers to be presented. To quote from his letter: "As the special societies and sections are devoted to the study of special diseases, for the County Society I have deemed it advisable to secure, for the most part, papers on the more common diseases, and obstetrical and surgical conditions which fall to the general practitioner in his daily routine of work. As the best specialist is the one equipped with a knowledge of general medicine, such papers cannot fail to be instructive to him as well.

"It is my intention, with possibly one or two exceptions, to request only members of the So-

ciety to present theses, selecting men who, through experience and erudition, will be well qualified to express the subject pithily and instructively, yet interestingly. To avoid prolonged sessions and tiresome reiteration, the discussions will be limited to five minutes. Thus, by calling the meeting to order promptly at 8:30 the adjournment should take place no later than 10:30." We wish him the greatest success in his undertaking.

One of the first matters of importance to be presented before the County Society concerns the choice of the new Court House site, on Livingston Street, Brooklyn. The members of the Society living in the neighborhood of the proposed Court House have strenuously objected to the adoption of this site.

The resolutions to be adopted by the County Society, as presented by the Committee of the Kings County Medical Society, are as follows:

It is the sense of the Kings County Medical Society that a petition be sent to the Mayor, Borough President and Board of Estimate, requesting that another site for the Court House than the one proposed on the two blocks bounded by Livingston, State, Court and Clinton Streets, be selected on the following grounds:

**FIRST.** That the destruction of these two blocks would seriously and permanently damage the practices of the physicians living there, interfere with their efficiency in discharging their duties to the public, in the hospitals with which they are connected, and act as a cruel injustice in thrusting from their homes and offices thirty-three physicians and dentists who expected to spend the remainder of their professional lives in the quar-

ters which they had especially arranged for the requirements of their work.

AND SECONDLY. That the expenditure of seven or eight million dollars in condemnation proceedings, building a new Court House and destroying high-class improved property which now brings a revenue to the city of several thousand dollars in taxes, when there are other accessible sites of like area which can be obtained at a much less cost, is an unnecessary and unwarranted extravagance and against the interest of the tax-paying citizens of Brooklyn.

JAMES W. FLEMING, M. D.

W. H. SNYDER, M. D.

H. H. MORTON, M. D.

Committee of the Kings County Medical Society.

### THE QUEENS-NASSAU MEDICAL SOCIETY.

THE year book of the Queens-Nassau Medical Society has just been received. The officers for the ensuing year are as follows:

PHILIP M. WOOD, *President*, Jamaica.

A. W. JAGGER, *Vice-President*, Flushing.

JAMES S. COOLEY, *Secretary-Treasurer*, Glen Cove.

#### *Censors:*

WALTER G. FREY, Long Island City.

A. S. AMBLER, College Point.

H. M. WARNER, Hempstead.

WILLIAM J. MALCOLM, Jericho.

W. T. SCOVIL, Richmond Hill.

WALTER LINDSAY, *Historian*, Huntington.

The delegates to the Medical Society of the State of New York are:

*For the term ending December 31, 1910:*

JOHN H. BARRY, Long Island City.

J. CARL SCHMUCK, Lawrence.

JOHN MANN, Old Westbury.

*For the term ending December 31, 1911:*

CHARLES M. NIESLEY, Manhasset.

W. J. BURNETT, Long Island City.

The President, Dr. Charles Niesley, of Manhasset, delivered his inaugural address at the annual meeting, December 28, 1909. His remarks were addressed to men who were beginning as general practitioners in the country. He spoke of the advancement in the methods of transportation; the unusual opportunities offered by the hospitals of Long Island, and the advantage of having systematic habits regarding the histories of patients. His reference to the inroads of specialists was especially amusing. To quote: "Last summer I had as a patient a little boy from the city, whose brief but eventful history illustrates this difference. When the mother became pregnant the family physician turned the case over to an obstetrician. The baby was bottle fed, and this part of the work was entrusted to a specialist on infant feeding, who had entire charge of the baby during the first year and even now, after four years, has general oversight over the boy. At the age of two a surgeon was called in to circumcise him, and six months later he had his tonsils and adenoids removed by still another specialist. Just where the family physician comes in I do not know, unless you put him down as a specialist on selecting specialists. Where people have unlimited means this procedure may be all right. I am not now discussing the wisdom of



such a fine division of labor and responsibility. The point I wish to make is, that you men will be expected to do much of this work yourselves, and that the practice of obstetrics, with this broader meaning, is well worthy of your best efforts. It means a great deal of hard and honest work, but the rewards are, with few exceptions, quite commensurate with the efforts put forth."

In closing he chose a few quotations from an address of Dr. Osler on the "Educational Value of the Medical Society," citing in conclusion that the Medical Society should represent a clearing house in which every physician of the district would receive his intellectual rating, and in which he could find out his professional assets and liabilities.

*New Members.*—The following physicians have completed their membership in the Queens-Nassau Medical Society since the last Year Book was published:

JOSEPH BAUM, Far Rockaway.  
ALFRED E. BAKER, Richmond Hill.  
DANIEL A. HARRISON, Whitestone.  
B. P. McLEAN, Huntington.  
WILLIAM RHAME, Wantagh.  
BENJAMIN W. SEAMAN, Rockville Center.  
F. J. WEIGAND, Richmond Hill.  
MARGARET M. YORK, Flushing.

Since the last Year Book was issued there have been two meetings of the Society, with an average attendance of nineteen. Eight resident members have been added to the Society during the year. There have been four deaths. One member has resigned and one has removed from the county. The number of resident members is now one hundred and twenty-one.

The affairs of the Society are in a booming condition, and under the leadership of its new President, Dr. Philip M. Wood, of Jamaica, they are expecting a series of interesting meetings.

## MEDICAL NEWS.

Edited by JAMES M. WINFIELD, M.D.

**Eastern District Hospital**—The annual concert and ball of the Eastern District Hospital was held at the Pouch Mansion on Clinton Ave., Brooklyn, February 8th, and was one of the most successful events of the season.

The hospital is more of a public than a private institution, although the support it receives from the city is practically *nil*. It maintains an ambulance service equal to that of any institution in the borough, and its surgeons are ready to respond at any hour of the night or day.

Unlike most institutions of its kind, the Eastern District Hospital is not always asking for money, nor does it arrange fairs and concerts during the

year for the purpose of raising money. It holds but one annual event, the concert and ball, and that is the reason it is always well patronized by business and professional men of the Eastern District.

**Further Resignations from Seney Hospital**—Dr. James P. Warbasse has resigned his position as Attending Surgeon, and also declined the appointment as Consulting Surgeon to the Seney Hospital. Dr. H. Beekman Delatour has also resigned from the same institution. Dr. Thomas R. French has also severed his connection with the hospital.

**St. John's Hospital**, Long Island City, is about to install its own electric lighting plant. It is hoped by

so doing to make away with the annoyances that often arise from inefficient service of the Edison current. St. John's received considerable financial benefit from the concert and dance that was recently given for the hospital at the Waldorf-Astoria.

**Fire-Proof Hospital.**—The head of St. Joseph's Hospital, Far Rockaway, contemplates the erection of a commodious fire-proof hospital. The increased demand for hospital treatment in that section of Queens makes it imperative that a new structure be undertaken at once.

**Methodist Episcopal Hospital Extension.**—Assemblyman George A. Green has introduced a bill giving the Methodist Episcopal Hospital (Seney Hospital), in Brooklyn, the power to maintain a hospital anywhere in the State, instead of only in Brooklyn.

**New Dispensary for East New York.**—Progress in the construction of the East New York Dispensary, the new free clinic for the poor of the Brownsville section, has been rapid of late, and it is now expected that the doors of the institution will open on or about the first day of March. For the past three years those interested have striven to accomplish the building of the dispensary, and now that their efforts are about to be fully realized, they have promised to make it one of the finest institutions of its kind in the entire borough.

**Swedish Hospital Staff Dined.**—On January 31st the Board of Directors of the Swedish Hospital gave a beefsteak dinner to the medical staff of the hospital and the members' friends at the Hofbrau Haus, Fulton street and Rockwell place. More than sixty persons attended the dinner. Speeches were made by Dr. Peterson, Dr. Chapman, F. Kindt and others.

**Staff for New Dispensary.**—The new dispensary of the German Hospital, Brooklyn, was opened January 12th. The following is the medical staff of the dispensary: Dr. George Burkard, gynecology; Dr. Otto Nied-

ner, medicine; Drs. Carl Fulda and Royale Fowler, surgery; Dr. Robert L. Moorhead, ear, nose and throat; Dr. George Mueller, eye; and Drs. Henry F. Adams and Henry E. B. Meyer, X-ray examinations.

**Red Cross Society.**—The American Red Cross has formed a New York State Board, consisting of Governor Hughes as president; Colonel William Cary Sanger, Alfred T. White, of Brooklyn; Cleveland H. Dodge, Jacob H. Schiff, George C. Boldt, Robert W. DeForest, Mrs. W. K. Draper, of New York; Robert C. Pruyn, of Albany, and Ansley Wilcox, of Buffalo. Mr. Schiff is the Treasurer of the Board. The function of the State Committee is to become the custodian of contributions given for relief purposes by the people of the State in the event of the occurrence of a great disaster.

**Metropolitan Sanatorium.**—The State Insurance Department has approved of the Metropolitan Insurance Company purchasing 250 acres in Westchester County for the purpose of erecting and operating a sanatorium for the treatment of tuberculosis among its employees.

**Free Lectures on Health.**—The Public Health Education Committee of the New York County Medical Society, of which Dr. Rosalie Slaughter Morton is Chairman, has arranged to give twelve free lectures at the Academy of Medicine beginning on the afternoon of January 27th, at 3:30 o'clock.

Dr. Wood Hutchinson will deliver a lecture, his subject being: "The Proper Food for School Children."

Dr. Josephine Baker, of the Hygiene Department of the Department of Health; Dr. Charles Gilmore Kerley, of the Infant Asylum, and Dr. Godfrey R. Pisek, Attending Physician of the Babys' Ward of the Post-Graduate Hospital, also are scheduled to speak.

**To Prevent Crime in New York City.**—A plan has been worked out to erect a hospital where children from



the Children's Court may be examined for mental and physical defects and treated either medically or surgically as the case demands. This institution is the result of the belief that many mental and moral infirmities are the result of physical defects and an expert investigation will be made of all cases of children under 16 years of age who come before the Children's Court. The cost, it is said, will amount to \$1,000,000, and Mrs. W. K. Vanderbilt will contribute nearly the entire amount.

**To Increase Clinical Features—**The Section on Medicine of the New York Academy of Medicine announces its intention of increasing if possible the clinical features of the section, and to this end a list of hospitals, dispensaries, laboratories and medical schools has been prepared, to each of which a meeting has been assigned.

**College of Physicians and Surgeons—**President Nicholas Murray Butler, of Columbia University, announces that within the past few weeks Columbia University has received gifts amounting to more than \$1,000,000 for the purchase of the entire block between One Hundred and Sixteenth and One Hundred and Seventeenth Streets and Amsterdam and Morningside Avenues. The College of Physicians and Surgeons will be moved to this site. Part of the new medical school equipment will be a building devoted entirely to medical and surgical research in which cancer research can be carried on under the terms of the will of George Crocker. The estimated cost of this undertaking is \$3,000,000. Large contributions have been received from William K. Vanderbilt, George J. Gould, Frank J. Munsey and an anonymous donor.

**Gaining on White Plague—**The first annual report of the Brooklyn Committee of the Society for the Prevention of Tuberculosis has been issued, and shows, that while still a young organization, the Brooklyn division has made great advances in the fight to eliminate the "white plague"

from this borough. The work has been carried on by every available means. Publicity has been promoted through the columns of the press and by means of pamphlets and advertising place cards. Lecture centres and branch exhibits have been conducted throughout the borough, and legislation has been urged through the recognized political organizations.

**The Influence of the Associated Physicians of Long Island—**According to one of the JOURNAL's correspondents, the stimulating influence of the Associated Physicians is beginning to have an effect upon the birth rate of Long Island. He writes us that the farmers' wives are giving birth to twins, and that even the cows, feeling the Association's influence and also, perhaps, wishing to follow the advice of one of our honorary members, are forming the habit of bringing forth twin calves.

**Hit at Cold Storage—**The Clarendon Hotel, under the management of John Hill, at the corner of Washington, Johnson and Fulton Streets, Brooklyn, which has an international reputation for comfort and cleanliness, accompanied by one of the best cuisines in the city, is using every weapon, metaphorically speaking, to counteract the effect of the cold storage trusts by never patronizing them. The visitor stopping at the Clarendon gets country fare without going to the country.

**Kings County Hospital Alumni Association—**At the annual meeting Dr. G. W. Conterno, of New York, was elected President; Dr. C. F. Maguire, Vice-President and Dr. M. B. Jones, Secretary.

**Medical Review of Reviews—**With the January issue this journal will be edited by Dr. William J. Robinson, of the "Critic and Guide." The editorial office of the "Review" has been moved to No. 12 Mount Morris Park West, New York City.

**Dr. Jennie V. Baker, of Brooklyn,** has been elected Vice-President of the

Homeopathic Medical Society of the State of New York.

**Medical Director Charles F. Stokes** has been appointed Surgeon-General of the United States Navy to succeed Rear Admiral Rixey, retired. Dr. Stokes is a native of Brooklyn and is well known to many of the members of the Associated Physicians.

**Dr. Abraham Jacobi**—At the annual meeting of the Medical Society of the State of New York a committee was appointed to commemorate the eightieth birthday of Dr. Jacobi.

**Dr. Robert A. Black**, of Hot Springs, Va., formerly of Brooklyn, has been visiting friends in New York. Dr. Black was Deputy Health Commissioner of Brooklyn under Mayor Van Wyck.

**William Cary Sanger**, of Sangerville, but formerly of Brooklyn, has been appointed State Commissioner in Lunacy to succeed William L. Parkhurst. Mr. Sanger was a former member of the State Legislature and at one time Assistant Secretary of War.

**Prof. Wickliffe Rose**, of the Peabody College, of Nashville, will direct the Rockefeller Hookworm Commission.

**Dr. J. F. Bates**, of Setauket, L. I., had to undergo a second operation at the Long Island College Hospital. The second amputation was made at the knee. At the time of writing the doctor is rapidly recovering.

**Loeb Goes to Rockefeller Institute**—A department of experimental biology has been organized in the Rockefeller Institute, and Dr. Jacques Loeb, of the University of California, has been elected its head.

## CHANGE OF ADDRESS.

**Dr. Frank E. West** has removed to the new Physicians' Building, No. 67 Hanson Place.

**Dr. A. H. Bogart** has removed to No. 27 Seventh Ave.

**Dr. Tyler Gibson Cooks**, who was once connected with the Health Department of New York City, has located at No. 177 Elm Street, Richmond Hill.

**Dr. M. A. Curry**, of Central Islip, has moved to Morris Plains, N. J., where he has accepted a position with the New Jersey State Hospital of that place.

## OBITUARY.

**Stewart Church, M.D.**, College of Physicians and Surgeons, New York City, 1870, died January 18th, 1910.

**Claude Bernard Schlatter, M.D.**, University of Zurich M. D., 1864. Died February 4th, 1910.

**Lucius Barston Irish, M.D.**, Berkshire Medical College M. D., 1860; Bellevue Hospital Medical College M. D., 1861. Died February 17th, 1910.

**George Howard Palmer, M.D.**, University City of New York M. D., 1884. Died February 18th, 1910.

**Joseph L. Johnson, M.D.**, 1868-1909. Bellevue Hospital Medical College, 1891. Died at Riverhead, L. I., December 2nd, 1909.

**William Balser, M.D.**, died at Richmond Hill January 24th, 1910.

**Frederick A. Wright, M.D.**, for many years Postmaster of Glen Cove, L. I., died February 1st. Dr. Wright was sixty-three years of age. For years he was Chairman of the Oyster Bay Republican Committee.



# TRANSACTIONS

## OF THE

### BROOKLYN GYNECOLOGICAL SOCIETY

*Regular Meeting, December 3, 1909.*

Meeting called to order at 8.45 P. M. by President Victor L. Zimmermann, M.D.

#### **RUPTURED ECTOPIC PREGNANCY.**

DR. A. M. JUDD, M.D., presented the following case:

Patient entered the hospital in August. Italian. Age 28. She had had one child six years ago and had been regular from that time up to the time of beginning of trouble for which she entered the hospital. Had been perfectly well. Missed last three menstrual periods. On the morning of the day she entered the hospital, she was seized with sudden violent pains in lower abdomen and when seen by me she presented all the symptoms of acute intra-abdominal hemorrhage. From the history I surmised that it was ectopic pregnancy with rupture. She was immediately operated upon.

The first thing found was a lot of free blood in the abdominal cavity. The fetus floated into the abdominal wound. Following up the cord, I found that the fallopian tube had been partially amputated, and was connected with the left cornu of the uterus by a small stem about one-half inch in length. The rupture had occurred on its upper surface near the outer extremity. This was removed and the abdomen closed and she made a good recovery. I do not think any of you will blame me for thinking I had either a double uterus or a rupture of an ordinary uterus in this case. It is a very interesting condition because of the size of the fetus which had escaped from the opening. The specimen has shrunk considerably owing to the fluid in which it was placed.

DR. CHAS. JEWETT asked if this was a case in which there was a primary rupture into the broad ligament and

a secondary rupture later. It would appear from the size of the fetus that the placenta held its attachment longer than the usual time preceding primary rupture.

The fate of the fetus must depend upon the placenta. So long as the placenta retains its attachment the fetus may live and grow.

In answer to the question of Dr. Jewett, Dr. Judd said that the same query had occurred to him, but his search of the abdomen would not lead him to think there had been any rupture into the broad ligament. It appeared entirely normal, a normal broad ligament of pregnancy, and this was the only point of rupture that he could find anywhere in the genital organs. How this occurred he did not know. It did not seem to him at the time he removed it that a cavity as small as this could have held this fetus, but, knowing how distensible pregnant tubes and uteri are, he concluded that this was a case of primary rupture late in a tubal pregnancy.

DR. J. O. POLAK: Would it be possible for the fetus to live in the abdominal cavity after rupture of the tube or is death of the fetus absolutely certain?

DR. CHARLES JEWETT said that when the blood supply is good, a fetus might grow. He did not think its presence in the abdominal cavity would be fatal as long as it was well nourished. He did not know of any cases in the literature, but he did not see why it would be impossible.

DR. J. O. POLAK said that as he understood it, it was very rare for the tube to hold a fetus longer than three months. He remembered one case where the fetus was full term, but the placenta was attached to the broad ligament and that specimen was presented here.

# RUPTURE OF UTERUS THROUGH SCAR OF FORMER CESAAREAN OPERATION.

DR. A. A. HUSSEY presented the following case:

The specimen which I wish to present is a uterus which I removed about three weeks ago. It is shrunken and bleached by the alcohol, but it still shows the interesting features which I would call your attention to. The rupture extends throughout the entire length of the former incision. The placenta was situated directly under the scar and had penetrated the whole muscular layer up to the peritoneal coat. You can still see remnants of the placental tissue attached to the edges of the tear. Apparently, for some time before the rupture took place, the peritoneum alone held the contents of the uterus in situ. An explanation of the rupture is to be found first in an incomplete union of the muscle after the last operation, and secondly, in the presence of the placenta beneath the scar, which may have contributed to the softening and separation of the muscle. That the rupture took place before labor pains began seems to be borne out by the statement of the patient and the fact that there was no dilatation of the cervix two hours after the accident, at which time the patient was examined. This young woman has had a stormy obstetrical history. She is 26 years old. This was her sixth pregnancy. Her first labor was 48 hours long, terminated by a difficult forceps operation, resulting in a living baby. The second and third were similar in character but resulted in still-born babies. She first came to the Brooklyn Hospital in February, 1907, being in labor with her fourth child. Her pelvic measurements were all below normal. The distance between the spines was 22 cm., the crests 24 cm., the external conjugate 16 cm., the true conjugate measured with the Hirst pelvimeter  $7\frac{1}{2}$  cm. After a test labor of several hours, with full dilatation and failure of the head to engage, a Cesarean section was done by Dr. Stuart. A living child, weighing over 7 pounds, was delivered, and the pa-

tient made a good recovery. In September of the following year she entered the hospital again, pregnant and nearly at term. I delivered her about a week before her labor was due by elective Cesarean, getting a living child. Her convalescence was complicated this time by a slight consolidation in the lower left lobe with severe cough that lasted about a week. After this cleared up her further convalescence was uneventful.

She came into the hospital again in October of this year in the eighth month of pregnancy. The last menstruation was February 26th. Her pregnancy was perfectly normal except for occasional attacks of indigestion with pain in the abdomen and vomiting. It seemed to be straightforward indigestion and cleared up under proper diet and medication in the hospital. I planned to operate about two weeks before the expected date which was December 3d, and she was kept in the hospital with this idea in view. There was nothing in particular in going over the case which would suggest the possibility of this accident. The abdomen presented nothing unusual. The scar seemed as firm and thick as usual. The uterus was regular in outline; there were apparently no firm adhesions between it and the abdominal wall, and it was in normal position.

*History of accident.*—Patient was all right up to the morning of November 13th. The previous night she was given a dose of licorice powder. Bowels moved twice and at six o'clock patient called the nurse and complained of very severe pain in abdomen. She soon began to vomit. About an hour later a bloody discharge was noticed from the vagina. She was prepared at once for an operation and when I saw her between 8.30 and 9.00, her condition was as follows: Considerable shock, pulse 140 and complaining bitterly of pain in abdomen; abdomen was very sensitive all over, not distended nor rigid, merely exquisitely sensitive to the touch; fetal parts could not be felt any more distinctly than usual. By vagina; head had receded; the cervix was not



dilated; one finger only could be inserted. On opening the abdomen clots and free blood were found. The placenta was one-half extruded through the wound; rupture had occurred apparently through the whole length of the old scar. The placenta one-third or one-half protruded, the membranes bulging alongside. There was plenty of room to deliver the child which was dead, without enlarging the opening. The placenta was quickly removed. Then the question of what to do with the uterus arose. There seemed to be so much placental tissue attached to the sides of the tear, which cannot be well seen in the specimen now because the alcohol has bleached it, that it seemed best to take out the uterus. In the latter part of the operation, her condition was unfavorable and a hypodermoclysis was given under each breast. She responded and within an hour after her return to the ward her condition was better. During the first forty-eight hours her condition was rather bad, pulse 130 to 120, respirations 40 to 30, temperature 101 degrees to 102 degrees, and she had a good deal of distension. The stomach ballooned out and she suffered a good deal. The stomach was washed and enemata were given to clear bowels and her condition became distinctly improved, so that twelve hours after the operation, the temperature was 99 degrees, plus 128, and respirations 24; twenty-four hours later temperature was 99 degrees, pulse 110 and respirations 26; after 72 hours, temperature 99 degrees, pulse 90, respirations 34. Further convalescence was rapid. She is now out of bed and ready to be discharged.

Blood examination immediately after the operation showed hemoglobin down to 37 per cent. red blood cells about 2,500,000. Now the hemoglobin is 47 per cent., taken the first of this week, and the blood cells increased proportionately. She made a better convalescence this time than the last.

DR. J. O. POLAK asked how the original wound was sutured.

In answer to the question of Dr. Polak by Dr. Hussey said:

I think the interesting point is why did the uterus rupture? She was not in labor. And it seems to me that the most probable cause is that I did not get complete union throughout the muscular layer in the last operation. At the time of that operation the scar of the first operation showed as a fine white line. I rather think the mistake I made was not to get some distance from this scar which was immediately under the abdominal incision. The uterine incision was sutured with three layers, first, a buried row of interrupted No. 2 iodine gut, placed three to the inch; second, a row of interrupted iodine sutures which passed through peritoneum and the outer third of muscles and tied across the wound. The third was a peritoneal stitch to whip together the peritoneal edges. My last two Caesarians I have done with the mattress suture which I think makes a better suture for the second row.

*Question.* What was the time of pregnancy and why not do a third operation three weeks before labor is expected?

DR. HUSSEY answered that the second operation was done at least a week ahead of time. This is a safe rule. There are cases on record where the uterus has ruptured before labor pains began. This patient had had two Caesarians and the child was of good size, and the patient should have been operated on two weeks ahead of time; if I had reckoned my time right, I think this accident would not have happened, because I believe she was at full term. Either she did not remember the date of menstruation or somehow she menstruated after she became pregnant, which may happen. I suppose one ought to be able to tell by the size of the uterus, when to operate. I confess to less skill than is necessary for that.

DR. JEWETT asked what was the treatment in the labors preceding the Caesarians?

Dr. Hussey answered that she had three severe forceps and two dead babies, the first one living.

DR. JEWETT remarked that the true conjugate was seven centimeters, a

pretty bad pelvis for forceps. It is well known that the uterine cicatrix after Cesarean section is very often thin and weak. In this particular case the tuberculous pneumonia may have been a factor in the imperfect union.

#### MULTIPLE CESAREAN SECTION.

DR. J. O. POLAK reported the following case:

Mrs. S., 27 years old Her first child was delivered by us by Cesarean at the Seney Hospital in May, 1908. Her external measurements were 23, 27 and 17.5 cm., respectively; internal conjugate was estimated at 8 cm. In her first labor she was allowed to have fifty-five hours of labor, which I consider was an ample test. It was one of those borderline cases, where we felt that it would be possible to mould and engage the head if sufficient time was given. Nature failing, a section was made and a nine-pound child delivered. She appeared again in our service at full term in November of this year, not having followed our instructions to report early in pregnancy. The occipito-frontal was estimated at 13 centimeters. The child was large. She was advised and assented to an elective Cesarean, which was done by Dr. Holden and myself without complication, and she made a smooth recovery. Measurements of child were as follows: weight, nine pounds, three ounces, length 53 cm., occipito-mental 14 cm., occipito-frontal 13.5 cm., suboccipito-bregmatic 12 cm., and bi-parietal 11 cm. The antero-posterior at the brim was estimated by three different surgeons as eight cm. This was the second Cesarean on this patient. She objected to being sterilized, so nothing was done to prevent further pregnancies. On opening the abdomen we found a few omental adhesions, which were readily separated. The incision was made to the right of the old scar. There was ample opportunity to examine the site of the previous uterine incision, the scar was thicker in this particular instance than the rest of the uterine wall. I have called attention to our method of uterine suture on other occasions. It is our custom to use long, straight Keith

needles, armed with No. 2 chromic gut and to pass the suture through the entire uterine wall, while the edges of the wound are held everted, endometrium to endometrium. These deep retention stitches are placed one-half to three-fourths of an inch apart. And between each of these is placed a superficial stitch. These interrupted sutures are buried and reinforced by a Lembert suture of running catgut. The uterine suture is made with extreme rapidity so that one can close the uterus in from seven to ten minutes.

I have had occasion to deliver several of these women subsequently without inertia or rupture.

#### CESAREAN SECTION AFTER PUBIOTOMY IN PREVIOUS LABOR.

DR. POLAK: The second case is one of special interest because it is unique. The patient is nineteen. Her first baby was delivered by pubiotomy in the Methodist Hospital by Dr. Pomeroy. The measurements are as follows: Interspinal 23, intercrystal 27, external conjugate 17, true conjugate estimated at 8 cm. Dr. Pomeroy's record and my estimations tally as to this measurement. He elected pubiotomy in this case because of a foot being down and because the case had been examined on the outside. He had extreme difficulty in delivering even a small child through this pelvis after the pubic section.

She reappeared in November at full term. The same measurements were noted with an additional point of interest. At the site of the previous pubiotomy, there was a ridge of callus one centimeter high, which shortened the antero-posterior diameter by that amount. This possibility has not been brought out by the defendants of pubiotomy. They have all said it increases the subsequent size of the pelvis. Here it actually decreased the size. An elective Cesarean was advised and accepted, which was done by Dr. Holden and myself. Measurements of child were as follows: Length 48 inches, occipito-mental 14, occipito-frontal 12, suboccipito-bregmatic 10, bi-parietal 10. The patient was sterilized by the Harris method,



which consists of excision of the uterine end of the tube and the implantation of the uterine end in the posterior surface of the uterus everting it and bringing the peritoneum of the tube to that of the uterus with interrupted sutures. In view of a subsequent marriage, this method is preferable to salpingectomy or burying the ends of the tubes in the broad ligaments.

#### EXTENSIVE LACERATION FOLLOWING PUBIOTOMY

DR. O. P. HUMPHSTONE reported the following case:

In connection with this unique case of Dr. Polak's demonstrating the diminished size of the pelvis from callos formation after pubiotomy, I have made an X-ray plate of a case in which we did a pubiotomy in the Jewish Hospital. It convinced me perfectly that pubiotomy in a primipara should never be done. It was the fourth in our series, an elderly primipara, with a long labor. The true conjugate was  $7\frac{3}{4}$  cm. We put forceps on without effort, then did a pubiotomy and delivered the baby through the brim of the pelvis when we were met with great difficulty in the soft parts. The soft parts were torn to pieces, including a large hole in the bladder and cuts and tears in the vagina. It was torn to the opening in the bone. All this traumatism in spite of a large Pomeroy bag having been used as a precaution. The baby died. The woman's wounds took sixty days to heal up and I decided I would probably never do a pubiotomy on a primipara again; certainly not an elderly primipara. This picture was taken sixty days after operation. The amount of callus has certainly diminished the true conjugate by one-half centimeter, possibly more.

DR. JEWETT in discussing this case said that this operation is an especially bad one for primiparae. There is one remedy and that is first to dilate the vagina thoroughly, or to make a vagino-perineal incision.

With reference to Dr. Polak's scar which was thicker than the uterine wall, was that not a pathological scar?

DR. POLAK said in reply:

I think all scars are in a sense pathological. The uterus bled freely from the scar side of the incision. The scar was perforated by innumerable open-mouthed vessels which would not retract as the vessels in the healthy tissue did. I judge that there was considerable hyperplasia. These scars have not been thin. A physician in delivering a patient on whom I had previously done a Cesarean operation for a ten-pound baby, introduced his hand inside of the uterus and the scar was apparently thin. After the delivery, the doctor examined the scar very thoroughly and found that the scar was somewhat thinner. That woman went through a stormy convalescence from her labor. I think that the character of the convalescence has much to do with the condition of the uterine scar in subsequently labors. In the first case, this woman's abdominal wound suppurated and she had an abdominal fistula for some time; this may have accounted for the thickening of the scar.

DR. HUSSEY.—I would like to ask Dr. Humphstone if he separated the bladder attachments before he cut the bone or if the rupture of the bladder occurred through the pressure of the head. I believe it is stated by those who defend pubiotomy that bad tears in the vagina which extend into the bladder can be avoided in two ways, first, by thorough dilatation of the vagina, and second, by a blunt dissection of the attachments of the bladder from the posterior surface of the symphysis, before the bone is cut.

DR. HUMPHSTONE replied:

Mr. President, the tear in the bladder was due to the lack of dilatation in the upper portions of the vagina. We make a small incision, large enough for the finger and the finger is placed behind the pubis before the needle is put through.

Question by Dr. Hussey: Was it due to stretching of the pelvic bones?

Answer by Dr. Humphstone: No, it was due to the diminutiveness and lack of elasticity of the vagina.

# **TUBERCULOSIS OF THE PERITONEUM, UTERUS AND ADNEXIA.**

A paper with the above title was read by Dr. Frederick T. Shoop, for which see page 96.

## *Discussion.*

DR. CHARLES JEWETT said that authorities are pretty well agreed that tuberculosis of the tube is probably never primary. This review is sustained by autopsy. In all cases a tuberculosis focus is found somewhere else. As to the route of invasion this may be the lower genital tract. The infection may reach the tubes by extension. It may be propagated through the lymph or blood stream from vaginal or vulvar wounds. I do not think peritonitis is often the cause of a salpingitis, but the converse is very common. Tuberculous salpingitis may arise from intestinal tuberculosis, especially by contiguity. I think the bovine bacillus may be a cause in children, fed on milk. Recently in a laparotomy upon a young girl, the mesenteric lymph nodes were everywhere enlarged. There was no peritonitis. The girl had been partly fed upon cow's milk. The case was very suggestive of tuberculosis from cow's milk.

As to diagnosis, often the patient complains of a sense of intestinal bloating and of irritable bladder. Not infrequently evidence of tuberculosis is found elsewhere, and this helps.

I have used the tuberculin test by the ophthalmic method and have had no bad results. The von Pirquet test, however, is safer. In using the von Pirquet test two or three scarifications should be made around the point inoculated, as controls. Yet even the tuberculin test is not conclusive. We may get a reaction wherever the focus may be and also in cases which have healed.

*Treatment.*—Removal of the tubes is important. These are very commonly the source of the peritoneal infection and must be resected if a cure is to be expected. But this cannot safely be done as a routine practice. We see cases in which everything in the pelvis is solid. Here sometimes it

is unwise to attempt the removal of the tubes.

Eisendrath in an elaborate paper, a few years ago, quoting extensively from German authorities, condemned operation. The cures which follow abdominal section, he believed, are spontaneous cures which we know are often possible. The experience of most of us I am sure has led us to believe that the cure in many instances may justly be credited to the operation.

How operation cures has been variously explained. Wright, of London, has suggested that the serous fluid which exudes after laparotomy is richer in antibodies than that removed. Another explanation which has been offered is based on the Bier principle. But neither of these conditions could have effect for more than a few days. I don't think we know the *modus operandi*.

DR. HUSSEY said: I think the subject is one we all have to consider. I have never been able to make a diagnosis of incipient tuberculosis of the pelvic organs before operation. I have made the diagnosis after opening the abdomen. These cases get well.

I recently saw a case which was instructive. The patient was invalided beyond what one would expect. She had a retroverted uterus which was exquisitely tender, and tenderness in each fornix and no mass could be felt. She was an invalid. If she went down town shopping, she would go to bed for a week from the pain which resulted from the exertion. I operated to suspend the uterus. On opening the abdomen, I found both tubes were studded with miliary tubercles. The uterus was much congested, large, succulent, but had no tubercles on it. The tubes were both taken out. I also removed the appendix, which was twisted upon itself and contracted at one point, but showed no tubercles. There was a little roughness and thickening of the peritoneal coat of the cecum but no tubercles. She made a good recovery and has been free from the pain since.



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## HYPERTHYROIDISM IN THE ADOLESCENT\*

By FRANK BETHEL CROSS, M.D.

BROOKLYN, NEW YORK.

Assistant Attending Physician, Methodist Episcopal Hospital,

IN presenting this subject of hyperthyroidism, I wish first to direct attention to the embryology of the tissue, with the physiologic action of whose secretions we have particularly to deal. In this way we shall have a clearer conception of what is meant by the thyroid, the accessory thyroid and the parathyroid bodies.

We are told that in embryos of from 3 to 5 m. there is observed a protrusion forward in the pharyngeal floor, caused by an evagination of some of the epithelial cells. These cells grow into the mesodermal tissue of the anterior wall of the neck and spread laterally. They are from the first surrounded by connective tissue and later become enveloped in capillaries. These cells then subdivide into smaller groups, which become hollow, forming aveloli, in which a colloid material appears towards the end of fetal life. In the growth of the gland, it gradually assumes, through its lateral extension, the adult form—two *lateral lobes* connected, in 80 per cent. of the cases, by an *isthmus*. From this isthmus, or from one of the lateral lobes, there may develop the *pyramidal process*.

The thyroglossal duct, which originally connects the tongue and thyroid gland, in disappearing may leave embryonic remnants, which according to their position are variously named *accessory thyroid*, *suprahyoid* or *pre-*

*hyoid glands*. All of these have the thyroid structure.

The *lateral thyroid* glands develop from an evagination of epithelium in the anterior extremities of the fourth inner branchial clefts. This takes place in embryos of from 8 to 10 m. These epithelial groups, like those which we noted became the thyroid gland, develop by a similar growth into the surrounding mesodermal tissue and then extend along the larynx until they come to lie in close apposition with the lateral lobes of the mother gland. This pair of lateral thyroids shows the thyroid characteristics.

The *parathyroids* also come into close relation with the thyroid. They arise from the third and fourth branchial grooves as epithelial evaginations, which lie posterior to the thymus and lateral thyroid buds. The thyroid growth brings all these glands close together, so that ultimately the parathyroids may even be imbedded in the thyroid tissue. The structure of the parathyroids is of the suprarenal type and distinctly not resembling the thyroid. Their relation to the latter seems to be solely one of location. They are generally four in number, two upper and two lower, all imbedded in what is known as Kocher's external thyroid capsule. They are small, brownish-red, irregularly-shaped bodies, approximately 15x6x2 mm. in size. The upper two eventually lie at the postero-median edge of

\* Read before the Alumni Association of the Methodist Episcopal Hospital, January 27, 1910.

the lateral lobes one-third the way down, and the lower two just below the lower poles of the lateral lobes.

The *anatomic features* of the thyroid are reflected in the embryology of the gland and are well known to you otherwise. There is one fact, however, of sufficient importance to be of especial interest, and this fact, mentioned by Luschka in Allen's Anatomy, is the remarkable blood supply of the gland, the sectional area of the arteries being almost equal to that of the arteries supplying the brain—the internal carotids and vertebral. This bespeaks an active and necessary gland.

The most common and, at the same time, the most plausible explanation of the *physiologic activity of the thyroid gland* is dependent upon the supposition that the gland secretes an active substance which, the thyroid having no excretory duct, passes into the general circulation through the medium of the lymph vessels. As we shall see, we are to-day unaware of the exact characteristics of this secretion, we are ignorant of its manner of affecting the body at large and the ultimate destination of the secretion is unknown to us.

We do not know the range of physiologic activity of the gland and so we cannot state that a given activity will produce specific results, nor can we be certain that the secretion does not vary from time to time in quantity, strength and composition.

How does it affect the animal economy? Does the thyroid secretion, passing into the general circulation, come into direct chemical relation with the tissues of the body and there destroy the toxins of metabolism or prevent their formation, or is this action indirect through the agency of the central nervous system or other glands of the body? We *do* know that it is unlikely that the metabolic toxins are brought in the circulating blood to the thyroid and there neutralized by the thyroid secretion, for in the disease cachexia strumipriva, for instance, thyroid feeding is beneficial even though functioning thyroid tissue is absent from the body.

And what is the ultimate destination of this thyroid secretion? Here again we must plead ignorance, for we do not know whether its union with the tissue cells of the body or with the toxins results in its destruction, or whether it is reabsorbed and carried in the blood current to the thyroid, there being re-secreted and again appearing specifically active.

A study of the thyroid tissue from a *chemical* standpoint does give us some positive information and for this we are indeed thankful. It is interesting, therefore, to learn that from the thyroid structure various chemical compounds have been separated and that of these compounds only those containing iodine are specifically active. In 1896 Baumann established the fact that iodothyron (a non-proteid substance, known also as thyroiodin) is combined with a proteid material, the thyrogen of Blum, to form the thyroglobulin of Oswald. This latter is obtained almost entirely from the colloid material of the thyroid, though it may be found in the cellular tissue, and when the colloid is scanty, the cells are comparatively rich in this substance.

The iodothyron is a brownish, amorphous material, remarkably resistant to chemical and physical agents. For instance, it can be boiled in a 10 per cent. solution of sulphuric acid without being in any way altered, and it is unaffected by prolonged exposure to the action of gastric juice. It is almost insoluble. It contains 9.3 per cent. of iodine and is chemically the same, whether of human or animal origin. Consequently we understand why the glands from the lower animals can be utilized to replace thyroids in man, and why this highly organic compound can be so safely administered by mouth without the danger of being rendered inert by the processes of digestion.

There are *non-iodine-containing compounds* in the thyroid gland: Oswald's iodine-free-thyroglobulin, the nucleoproteid of Oswald, Fraenkel's thyroantitoxin and Dreschel's basic products: but these are all non-active when the thyroid secretion is consid-



ered. This does not mean that the iodine in the gland acts as iodine, but that it acts as iodothyronine and that this latter substance has a true specific action. Hence the internal administration of an iodine-bearing salt cannot be expected to act as the thyroid secretion, and, put to the chemical test, iodine salts prove of no benefit in the disturbed metabolism of myxedema and cretinism, though the iodine content of the gland may be increased.

This iodine content is variable, ranging from 2 to 9 milligrams, and is itself not an index to the physiologic activity of the gland. We may, in fact, get hyperthyroidic symptoms from a gland found afterwards to be poor in both colloid and iodine, and with a simple goitre rich in colloid and iodine we may discover no relative hyperthyroidism.

Only by a careful clinical study of hypo- and hyperthyroidic diseases are we able to learn the *physiologic action of the thyroid secretion*. The absence of an excretory duct makes it impossible to study the secretion itself and so we are forced to the experiments of depriving the lower animals of their thyroids and of over-feeding them with iodothyronine. From the observations made we can make deductions and form a quite exact idea of the effect of the thyroid secretion on the human economy.

It can be stated without danger of inviting contradiction that thyroid secretion has a selective influence on metabolism in general and that it is essential to normal growth, no other organ perhaps exercising so great an influence. Whether this control of tissue metabolism is solely under the influence of thyroid secretion or not is not established at present, but that its influence is very great is possible of proof.

There is a specific influence on the nervous system and, through the medium of the sympathetic nervous system, a corresponding effect upon the blood vessels. The skin and epithelial tissues are strongly influenced in their growth and functions; likewise the growth of the osseous system appears to be partly under thyroid control.

The chief effect, however, is exerted upon general body metabolism: this seems to be regulated in a now unknown way, nitrogen metabolism being promoted and yet wasteful metabolism limited. It is as though the thyroid acted as a "governor."

We are familiar with the grosser disturbances of the thyroid balance, even though we do not know the range of normal physiologic activity and have no means of determining it. I think, however, that despite this handicap *we are learning to appreciate even the lesser disturbances of thyroid activity*. This field promises a considerable future.

*The parathyroid secretion* appears to be antitoxic, altering metabolic products so that they may be excreted by the kidney. This would appear to be definitely established now, since the removal of all parathyroids is followed by the development of fatal tetany, non-fatal tetany resulting if but one is left. Thus hypo-parathyroidism produces a symptom-complex that is recognizable.

That in some way the effects of thyroid disturbance are under parathyroid influence would seem to be indicated by some of Kocher's statements:

1. That the removal of both thyroid and parathyroid glands is less rapidly fatal than parathyroidectomy alone.

2. That cachexia strumipriva is less pronounced if the parathyroids are removed as well as the thyroid: and

3. That iodothyronine exerts a favorable influence on parathyroidectomy.

Doubtless you are familiar with *Sajous' theory* of thyroid secretion. This brilliant author, in the support of his theory of the adrenal system, accords to the leucocyte the leading role in the thyroid physiology, stating his belief that the white blood cell is carried to the thyroid in the circulating blood, emigrates through the endothelial wall of the capillary and the inter-follicular septum into the avascular space, there fixing itself upon the basement membrane. From this location the leucocyte gives up its protoplasmic granules, which pass into the follicular fluid and represent the active con-

stituent of the colloid material. In support of this he calls attention to the fact that leucocytes take up iodine physiologically, as demonstrated by Labbé and Lortat-Jacob.

To complete the theory that Sajous presents, I may say that he follows the thyroid secretion to the heart and thence to the lungs, where the red blood corpuscles take it up, carrying it throughout the body and incidentally to the anterior pituitary body. Upon this gland the thyroid secretion exerts an exciting influence and, in turn, the pituitary body through its nerve ganglia regulates the activity of the adrenal glands, whose secretion of *adrenoxidase* is the active factor in the general metabolic processes of the body.

With this consideration of the embryology and growth of the thyroid gland and this argument of its physiology and this study of the characteristics of its secretion, let us pass on and view the *diseases of the gland accompanied by hyperthyroidism*.

The diseases associated with hypothyroidism are familiar to you all. The hyperthyroidic diseases are not so numerous, but they present distinct clinical symptoms which make them readily recognizable.

We must first appreciate that while enlargement of the thyroid is usual in hyperthyroidism, it is not necessarily essential, as is seen in the cases of exophthalmic goitre without the goitre; nor is thyroid hypertrophy alone indicative of pathologic disturbance of its secretion. Simple goitre exists without hyperthyroidism, and may even be present when the clinical picture is one of *hypothyroidism*. Witness the disease cretinism, in which 70 to 80 per cent. of the cases show goitrous enlargement of the thyroid: if the enlargement was the sole guide to the physiologic activity of the gland these cretins would not be cretins, in our use of the name; but a second consideration creeps in—namely, the amount of glandular tissue physiologically active and this may be great or small regardless of the apparent size of the gland. The third consideration is the degree of activity. And

so the law may be laid down that *hyperthyroidism is the result of over-activity of the thyroid gland to a degree that metabolic, nutritional and nervous symptoms manifest themselves*.

*Congenital goitre*, seen occasionally, is not accompanied by hyperthyroidism. The gland may be enormously enlarged, Demme, whose monograph is classic, reporting one case of a thyroid weighing 3 oz. (102 gm.) instead of the usual 30-45 gr. (2-3 gm.). There is generally an accompanying thymus hypertrophy. The gland, if the infant survives delivery, undergoes rapid diminution in size, this process being hastened by the administration of iodine to the nursing mother or thyroid extract to the bottle-fed baby.

*Simple goitre* presents no symptoms pointing to hyperthyroidism originally, but later in the disease these symptoms may manifest themselves and the condition merge slowly into an early stage of exophthalmic goitre.

The disease appears at puberty and is more frequent in females (all my six cases being girls from 14 to 17). The glandular enlargement is generally bilateral, in some cases the right lobe showing the larger increase. I have not seen the nodular enlargement described by some writers. The gland structure is firm but elastic and is distinctly not fibrous. I am unable to account for the development of simple goitre, though it has been variously attributed to drinking water (this is in special localities where goitre is common—northern New York, for instance). Virchow's statement that there is a tendency to thyroid overgrowth because of the marked blood supply provides a possible explanation.

The treatment is non-operative: Iodids for a long time, iodine locally over a gland and a change of drinking water. It may suffice to boil the water. With this treatment Kocher states that he expects 90 per cent. recovery of cases in children.

*Inflammation of the thyroid* may develop in the course of any infectious disease—scarlet fever, diphtheria, measles, typhoid fever, mumps,



whooping cough, malaria or acute rheumatism—and follows the usual course of any suppurative inflammation. We do not expect hyperthyroidic symptoms in this disease.

The *hyperemic thyroid*, or thyroid *hyperemia*, is the special disturbance of the thyroid to which I wish your attention to be drawn. For several years I have been seeing this condition and, upon consulting reference text-books, have found pediatric literature quite barren of comment on this affection. The condition arises at *puberty* and all cases seen by me have been girls. The usual history is that the patient has grown rapidly, has been busy at school, has been observed to be nervous and then the discovery is made that the collar worn is unduly tight. An examination reveals a swollen neck and the patient is brought to the physician. The gland is found to be symmetrically enlarged, occasionally the right lobe slightly in excess; the gland is firm but yielding; no bruit is felt or heard. There is usually a moderate simple anemia. There may or may not be a tachycardia. The patient is markedly nervous; there may be a slight tremor. In two cases which I have seen there seemed to be a tendency to exophthalmos and the entire clinical picture was that of a mild exophthalmic goitre, yet recovery was prompt, there was no return of the disease and the resemblance to Parry's disease was in the end only a simulation. This transient hyperthyroidism, which in adults may be seen at menstruation, during pregnancy and in sexual excitement, is in reality more or less physiologic and represents the over-response of the thyroid gland to the stimulation of altered nerve activity, and, in the cases above mentioned, to the special altered internal secretions manifest at puberty. Demme and other French internists describe this as "school goitre," and a variety occurring in warm weather and occasioned in part by the wearing of constricting collars as "summer goitre" and "garrison goitre."

The *course* of thyroid hyperemia is

short. With proper treatment the condition should disappear in a few weeks or months, and in some cases the subsidence of the disease appears to be spontaneous, leaving no relation to the treatment pursued.

The *treatment* is largely a matter of hygiene. A rest from school activities, life in the open air, preferably in the country, good nourishing food, a change in the drinking water and an avoidance of nervous excitement are the prominent features of the treatment. The anemia should be corrected and nerve sedatives administered as required. Small doses of arsenic exert a retarding influence on the overactive gland.

Coming now to the disease of *exophthalmic goitre* which, while rare in childhood, is quite properly a disease of adolescence since many cases develop before the age of 20, we can safely state that all indications point to its being of hyperthyroidic causation, or, as Kocher names it, a thyrotoxicosis. The majority of our investigators accept the Möbius theory of hyperthyroidization (1886).

The *etiology* is obscure, though there may be a family or individual history of thyroid disease: the patient may have been subjected to long mental worries or to a sudden emotional shock; or the disease may have been preceded by an acute infection of the tonsils and throat, or by tuberculosis, acute rheumatism, scarlet fever, typhoid fever, measles, mumps or malaria. In adult females, pregnancy is an undoubted factor in the development of this disease, preceding it by from 3 to 8 mos., or the disease may develop during the puerperium.

That there is an additional need for thyroid secretion in pregnancy has been determined by the demonstrations of Halsted, who partially de-thyroidized a number of female dogs. Until pregnant these dogs showed no symptoms and then a hypothyroidism evidenced itself. At the end of pregnancy recovery took place promptly.

That all the symptoms of exophthalmic goitre except the exophthalmos can be produced by thyroid feed-

ing has been generally admitted and opponents of the theory of hyperthyroidism have clung tenaciously to this exception as a proof that there is some other unknown etiology of the disease, but the case reported in April, 1898 by *Notthafft* and quoted by Sajous and Dock would appear to cause them to relinquish their idea.

The patient was a man of 43, taking thyroid extract for obesity and, dissatisfied because of slow improvement, running the dose up rapidly so that within 5 weeks he took the enormous quantity of 5,000 grains.

"For the first 3 weeks nothing was noticed except loss of flesh, but after this time dyspnea came on with swelling of the neck and very rapid loss of weight. Altogether 30 pounds were lost and five-sixths of this loss took place in the last 3 weeks. When examined the patient had marked *exophthalmos*, with both *Stellwag's* and *von Graefe's* signs, the thyroid gland was enlarged and pulsated, and there was a thrill over it. A fine tremor of the fingers and tongue was quite evident; the cardiac beat was displaced outward and the pulse was 120 to the minute; polyuria and glycosuria were also present. Under the use of *Fowler's* solution and after the withdrawal of the thyroid extract, most of the symptoms rapidly disappeared, only the ocular manifestations and the goitre persisting for nearly 6 months."

Here, then, was a case with typical symptoms, all disappearing with gradual recovery after the cessation of the thyroid therapeutics.

A case from the medical service of the Methodist Episcopal Hospital serves to substantiate further the argument that overactivity of the thyroid is the chief factor in the causation of exophthalmic goitre.

In January, 1907, a German woman of 37 in comfortable circumstances was admitted to the service of Dr. Mead and myself, presenting the typical symptoms of *Parry's Disease*. She had been ill for 2 months, there was a marked loss of flesh, her weight falling from 244 to 169 pounds. Medical treatment gave no relief, and the *Rogers-Beebe* serum was of no apparent benefit, so she was transferred to the surgical service of Dr. T. B. Spence, who under local anesthesia removed the greater portion of both enlarged lateral lobes. Promptly there was noted an improvement in her condition: this continued and the patient returned to health. In May, 1909, almost 2½ years later, the patient noted an enlargement of the left side of her neck and all symptoms recurred. The progress of her disease was rapid and in July she was again operated on by Dr. Spence. Under ether anesthesia the hypertrophied remnant of the left lobe

was excised, and again the patient made great strides towards health. She is now free from all symptoms and has gained 15 pounds in weight. The only pathological condition present is an old nephritis which dates back to 1902, when she gave birth to twins. It is interesting to note in this case that each attack of hyperthyroidism was preceded 9 months by the birth of a baby.

*Symptoms:* Besides the three classic symptoms of enlargement of the thyroid, tachcardia and exophthalmos, the symptoms evidencing marked disturbance of the nervous system and of general metabolism predominate.

The *cardiac palpitation* is violent, the heart is slightly dilated, there is a blowing systolic bruit heard over the heart and great vessels of the neck. The eyes present a widening of the palpebral aperture (*Stellwag's* sign), a retarded movement of the upper lid on looking downward (*Gräfe's* sign) and an inability to maintain normal convergence (*Möbius*). There is a fatigue tremor of the extremities. The *disposition* is one of general depression, though these patients are easily excited.

The *appetite*, sometimes poor, is usually increased.

The *metabolic disturbance* is very great, total tissue-change being considerably increased. The reason is twofold: the tremor and general restlessness, and the specific action of the thyroid secretion upon body tissue change and especially catabolism.

There is an increase in oxygen consumption, amounting to as much as 50-70 per cent. increase in severe cases. This is unequalled in other diseases, not even excepting continued fever, leukemia or diabetes. This may be explained by the increased heart and lung activity, by the increased intake of food and probably the muscular excitement in tremor is of possible help in bringing this about.

There is an emaciation resulting from the increased tissue destruction and from the increased excretion in feces and urine, and when the appetite is poor, this weight loss is greater. Nitrogenous disintegration is high and to balance this in a degree the food intake must be made much greater than in health. I think the necessity



of overfeeding these patients (relatively speaking) is often overlooked.

In young stunted individuals, the height is apt to increase.

The urine is passed in large quantity, this resulting in part from the increased ingestion of food and fluids, due to the enormous appetite. The total chlorid, phosphat and nitrogenous excretion is considerably enhanced, though the relative excretion is normal. Albuminuria is uncommon and there is no evidence of intestinal stasis or autotoxiosis, the acetone and indican being normal. There is a liability to glycosuria, due to the influence of the thyroid secretion on the physiologic retention of sugar in the body tissues.

There is apt to be a diarrhea, which probably represents an effort on the part of the body to rid itself of the excessive secretion. In this diarrhea we have a reliable guide to the dosage with thyroid extract in hypothyroidism or athyroidism. Upon its development, the administration of the drug should be temporarily discontinued. Nausea and vomiting may be present.

The skin flushes frequently and the perspiration is increased. Exceptionally there may be vitiligo, edema, purpura and pigmentation of the skin.

There may be slight irregular fever.

The blood shows an anemia of varying severity.

The cases of exophthalmic goitre differ in severity and symptoms, and we may recognize several types: 1. The simple form; 2. The acute severe form; 3. The chronic severe form; 4. The chronic variety in which myxedematous symptoms finally appear.

The *treatment* of exophthalmic goitre is either medical, with sera or surgical.

The medical treatment insists upon relative rest and when we take into consideration the great metabolic losses of this disease we can appreciate why this is essential. The diet should be nutritive and non-stimulating, yet should be as full as possible and the quantity of food insisted upon should be as much as we are warranted in urging upon each individual case.

Bromides and nervines to lessen the nervous symptoms, heart sedatives to quiet the overacting cardiac organ, ferruginous compounds for the anemia are all warranted. Arsenic specifically combats the excessive metabolic changes. Quinin, which lessens nitrogenous catabolism, is used, and this feature of its physiologic action explains why this drug has given good results in the hands of some therapeutists: Forchheimer, for instance, has reported much success with the hydrobromat of quinin. All writers mention the treatment with Galvanism, but I have never used it or seen it used.

With *Möbius' serum* in the 90's the first effort was made to affect the course of this disease with sera. Möbius removed the thyroids of sheep and, after waiting a sufficient length of time for the development in the animal of metabolic toxins, drew off the serum. The idea was that in the administration of this serum to cases of exophthalmic goitre the excessive thyroid secretion, which originally auto-antitoxic in the healthy organism is when in excess toxic, would be neutralized.

The milk of dethyroidized goats was used with benefit in exophthalmic goitre in 1894 by Lanz.

*Thyroidectin* of Parke, Davis & Co. is similarly prepared, the entire blood and not the serum alone of thyroidectomized animals being utilized. From such sera and blood preparations which depend upon neutralization for their action we must not expect too much. They provide us with a means of combating promptly the development of hyperthyroidic symptoms and there seems to be no doubt that in thyroidectin we have an easily obtainable agent of value which offers our patients temporary relief from the troublesome symptoms of goitre. It is possible that its constant administration, like the continued treatment with thyroid extract in cretinism and myxedema, would keep in abeyance the effects of the pathologic process in the thyroid, but clinical experience will bear me out in the statement that there is no reason to antici-

pate that a permanent cure can be effected with preparations of this type.

Rogers and Beebe report a remarkable success with their cytolytic sera and of over 500 cases treated up to December 13, 1909 (personal communication) announce 25 per cent. generally complete recoveries, 50 per cent. improved, 17 per cent. unimproved and 8 per cent. deaths. These statistics include all stages of the disease and many of the cases treated had previously passed through many hands and were more or less hopeless. Withal, these results are most encouraging and augur well for the future.

The serum used now is a *normal* serum obtained either from rabbits, dogs or sheep after injecting them with the combined precipitated nucleoproteids and thyroglobulin of healthy human thyroids. Several *pathologic* sera have been prepared by using the thyroid glands from cases of simple goitre or exophthalmic goitre, but the difficulty experienced in obtaining a sufficient supply of pathologic glands has led to the present almost complete use of the normal serum. All the sera are active and contain the antibody or cytolsin for the secreting thyroid epithelium. They are standardized by an agglutinating test similar in principle to the Widal reaction.

The normal serum is administered by hypo exclusively and the dosage is advanced slowly, beginning with 10 min. every day for three or four days and increasing to 15 min. every second or third day. The first injections, in those patients who are sensitive to a foreign serum, are apt to be followed by considerable local irritation—*erythema*, induration, urticarial wheals and much itching. There may be noted general symptoms of malaise, increased nervousness and accelerated pulse, but these are exceptional rather than the rule. The irritation symptoms persist for 12 to 24 hours and then, if the patient responds favorably to the serum, he is better than before the treatment, there is an increased feeling of well-being and each successive treatment is followed by increasing improvement.

The *surgical measures* applicable to cases of exophthalmic goitre are two: vessel-ligation and partial thyroidectomy. *Vessel ligation* as a therapeutic measure is credited to Wolfler and has recently been vouched for by the Mayos, who report upon 87 cases of ligation without thyroidectomy, as follows: 4 cured, 11 very markedly improved, 44 greatly improved, 9 slightly improved, 9 cases of questionable diagnosis, no improvement, 10 unimproved; the immediate operation mortality was 2 per cent. The operation seems to be especially applicable to two sets of cases: those with mild hyperthyroidism, and those advanced cases in whom the late degenerative changes have been so marked as to contraindicate any radical operative procedure.

*Partial thyroidectomy* in the majority of cases appears to me to be the operation of choice. Here, again, the therapeutic measure adopted must depend upon the individual case. For instance, in the late myxedematous stage of exophthalmic goitre the operation would be absolutely contraindicated. As a general thing, however, the operation is applicable and it seems to me that Kocher's report of 200 cases, with 85 per cent. of recoveries, speaks eloquently for this procedure.

141 Seventh Avenue, Brooklyn.

#### REFERENCES

- H. G. WELLS: Ref. Handbook Med. Sciences, 1903.
- MACCALLUM: Ref. Handbook Med. Sciences, 1904.
- A. C. COTTON: Med. Diseases of Infancy and Childhood, 1906.
- A. MAGNUS-LEVY: Von Noorden's Metabolism and Practical Medicine, 1907.
- J. ROGERS: Serum Therapy in Grave's Disease, Long Island Medical Journal, 1907.
- C. SAJOUS: Internal Secretions and Principles of Medicine, 1908.
- F. SIEGERT: Pfaundler and Schlossman, Diseases of Children, 1908.
- KOCHER: Keen's Surgery, 1908.
- BAILEY AND MILLER: Embryology, 1909.
- G. DOCK: Osler's Modern Medicine, Vol. VI, 1909.
- J. ROGERS: Significance of Thyroidism and its Relation to Goitre, Annals of Surgery, Dec., 1909.
- C. H. MAYO: Ligation of Thyroid Vessels, Annals of Surgery, Dec., 1909.



# NEWSPAPER MEDICINE

By HORACE GREELEY, M.D.

BROOKLYN, NEW YORK.

IN THESE days of almost universal newspaper reading the influence upon the great majority of readers of almost everything printed therein cannot be gain-said, and whether this influence be for good or evil depends entirely upon the editorial personnel.

We continually see the exploitation of ridiculous so-called scientific theories and misrepresentation of others that have some basic truth, but beyond increasing the stock in hand of those human planets that ever seek a broad-light-way, without having developed that adult sense, conservatism, little harm is done; as any way fools will be foolish and are often best known by their apparent universal scope of knowledge. But in the department of medicine more harm may, and has been done; for herein information, both true and false, is greedily grasped by a public which might be facetiously said to be painfully interested in such matters. And as the false and distorted statements printed are usually the more attractive, being more mysterious and offering relief to the suffering with the minimum of self-abnegation, it is these that are more eagerly sought and acted upon by the reader. Ponce De Leon never sought with greater pertinacity the Fountain of Youth than the general public that pill which in one dose is warranted to counteract all the bad habits of a lifetime, and anything masking in this guise is swallowed without question.

The truth in therapeutics, as elsewhere, being so much less inviting to the uninitiated, as we all know from the difficulty encountered in inducing patients to follow those simple procedures which, in the aggregate, often make all the difference between betterment and decline, and surely often offer the only hope of relief, is rarely regarded and almost never followed by those of the public that receive

their advice from the medical-commons afforded by the public press.

One of its least harmful and perhaps most amusing fields of action deals with the reduction of obesity and we are daily regaled with cocksure-cure methods from prize-fighters, professional swimmers, actors, dress-makers, etc., etc., which, beyond their purpose of self advertisement, perhaps only effect a few attacks of acute indigestion in those, but they are astonishingly many, who gullibly swallow the straw. They never push matters as far as did the countryman who read in the daily press of how greatly in excess of our requirements was the daily quota of food consumed, and determined to try the reduction plan recommended upon his horse, and successively lowered the poor animal's allowance till it was but a single straw per day, and, when the beast died, felt greatly disappointed that he had no other to try the same plan upon.

Of a different nature, however, are those announcements of new cures for consumption, cancer, and for other well known serious maladies, which are so frequent. When these are not the products of some charlatan's press-agent they at least distract the patient from attention to those methods that have been universally recognized, and of whose unique value, as I have said, he is with such difficulty convinced. In my experience I have rarely encountered a tubercular case (and I devote my practice exclusively to such) that had not at least heard of almost every quack medicine or doctor, advertised to cure the disease, either in the news- or pay-columns of the public press, and I have even found that oftener than not he would admit he had tried its, or his, efficiency.

A year or so ago I noticed repeated despatches in the news columns of a prominent New York paper announcing that a weaver, or some lay-work-

man, of Haverstraw, had made a wonderful discovery of a cure for all stomach ills (I think cancer was included) and it was followed up with the usual accounts of the relief therefrom gained by various prominent citizens of his neighborhood. Not many months later the true inwardness of the affair was demonstrated when there appeared regular advertisements, in the same journal, of the alleged discovery.

One New York paper, which has a ready cure for all ills, bodily and political, (late history shows it has thrice unsuccessfully tried to apply its specific for the latter), never neglects an opportunity to give opinion and advice upon all medical minutia, and its editorial columns in a short time would furnish an admirable course in quack physic for a modern "professor." The outrages upon good sense committed by it are almost unbelievable and it is a continual surprise to me that even a newsboy would take it seriously, unless in pill form as a cure for constipation, or, if homeopathically inclined, for the belly-ache, *similia similibus curantur*.

In some cases, that of the tubercular subject for instance, the harm wrought is extreme, for although he is but rarely financially and temperamentally able to secure the greatest advantages afforded by the hygienic treatment, very frequently he is tempted by the products of the lay-press to try one or more of the short cuts to health so freely offered therein, by which his savings and family reserve are exhausted and till, through loss of time and the effects of malpractice, he passes the therapeutic Rubicon.

Some time ago there was a Brooklyn physician, since deceased, who was said to have previously exhausted the abortion field, and was even alleged to have become so over-fond of a particular alkaloid as to have ruined his health, who turned his attention to consumption cures and, after a few months of personal exploitation among ignorant sufferers and press agent wire-pulling, was blazoned forth

in the two New York dailies of largest circulation with column articles describing his wonderful methods and marvelous cures. These publications were continued for over a month, accompanied often with pictures of his patients, his house, and his assistants applying the "new cure." These advertisements gave him such notoriety that large numbers of tubercular patients, as many as ten or fifteen new cases a day, flocked to his office to be burnt in more ways than one, for, besides fleecing them in advance payments of from fifty to three hundred dollars, his treatment, which consisted in the repeated applications of fly-blisters to their thoraces, followed by a plaster made of some tarry substance, often caused such sloughing of the tissues as to expose the ribs. He claimed that by the profuse suppuration thus produced superficially, "the pus was drawn out of the lungs." Several of his ex-patients, whom I saw die in a public institution for such cases, were so wrought upon, and a number showed me printed diet lists supplied by him upon which the chief article listed was weak tea.

This man leased two adjoining houses with a connecting passage and fitted one out as a photograph-gallery and took pictures of before and after taking, with which, when I visited the place, the walls were papered. To attract as much attention as possible he caused the plasters in use to be prepared in the yard and always had a number of cures standing about to pour their honied tale of the miracles performed into the ears of newcomers. Following an exposure in which he was convicted of "planting" the alleged sputum (a white of egg and starch mixture) of a non-tubercular case his business rapidly fell off and he died, it was rumored by his own hand. The non-charitable might say that such a falling off in material could only be effected by the exhaustion of the supply, or at least of their pocket-books, and class it under the Pasteur exhaustion theory.

Another practitioner, whose quackery is of a more cautious and slowly



moving kind, relies upon advertisements which none of the New York dailies scruple to publish, making the usual extravagant claims for special methods of diagnosis and treatment in which the awe-inspiring X-rays figure largely. He always manages to quote, or misquote, for his own purposes, some eminent authority upon the subject or the announcements of various anti-tubercular societies. An X-ray expert, who visited his offices some months ago, told me that the machine in use was totally inefficient for diagnosis and undoubtedly was only used to impress. His practice, as is usual with such men, consists in extorting, as advance payment, all the money that the patient can raise and the sufferer is then allowed to return as often as desired to inhale "healing and antiseptic balms," and to go through as much mummary as can be brought to bear under the circumstances.

Even the simple announcement by the lay press, as a newly discovered cure, of some new theory or experiment, carrying with it to the public mind the claim of infallibility, does great harm, if in no other way, by discrediting medical science, and often worthy individuals, through the failure of fruition which naturally attends most of such ventures.

One prominent daily, which prides itself upon the conservatism and selectness of its reading matter, recently printed a leading column editorial in which it announced in grim earnestness that a specific for influenza had been discovered in gelsemium, a depressant long superseded among the majority by more reliable members of its class, which have now fallen into comparative disuse. Wishing to make further show of its medical erudition it proceeded gravely to announce that this disease had originated on the banks, and from the

sewage polluted waters, of the Neva, (in Russia), wherein the specific germ throve—a most valuable addition to our knowledge of the habitat of this bacillus, had it been true.

Unfortunately, we observe no tendency for reform along these lines among the newspapers, who, beyond an interested effort to give no one free advertising, seem to care little for accuracy and publish almost anything, provided it be allied, at least, to the sensational.

It has been argued that the doctrine of the survival of the fittest applies to those who are misled in things medical to their own injury and destruction, but medicine as a science is typically Christian and it endeavors to save what the harsh hand of nature has thrust aside, so that against themselves we must ever endeavor to save our patients, and they, in the spirit of the great Physician, are all our fellowmen.

It is to be hoped, however, and the efforts of all medical men should be directed to this end, that some of the more conservative and self-respecting journals will soon awaken to the facts and place the same safeguards around their medical items as protects other news matter, in the way of a medical editor, and when this supervision has been established by one, the more important of the remainder will probably soon follow suit. A claim for accuracy more substantial than, "If you see it in this paper it is true," will bring its own reward, and that newspaper that specializes in its Editorial Department, so as to include all the important branches of knowledge, of real and present interest to its readers, will gain a clientele more desirable and permanent than excitable discontents, long known to fall an easy prey to the irresponsible and ignorant claims of demagogues and charlatans.

# CERVICAL ADENITIS

By ROGER DURHAM, A.B., M.D.

BROOKLYN, NEW YORK.

WORK attributed to Hippocrates gives a fairly correct description of the glands, with an ingenious account of the origin of scrofula. This writer said that the disease is due to the lodgment of humors in the glands of the neck, which sets up a low grade of inflammation. The glands are situated mostly in humid places, as the groins and armpits; the hair, like the tall marsh grass of swampy places, thereby being produced. Too much moisture chokes out the seed of the hair, and so in such places their absence is accounted for. (Works of Hippocrates, Vol. I, trans. by Francis Adams.)

The following case histories will serve as types of cervical adenitis:

## *Acute Glandular Fever.*

CASE I.—Male; thirteen months; weight, 25 pounds. Had been in normal health up to present trouble, when a swelling was noticed at angle of left jaw. In twelve hours this attained its greatest size—was only slightly tender, and was accompanied by a temperature of 102 degrees and pulse of 150, with moderate prostration, loss of appetite and pain. The throat and nose were normal in appearance. The temperature was of a septic type with highest rise at eight or twelve in the morning, and ranging from 97 degrees to 104 degrees. This continued for ten days with a gradual return to normal. The treatment consisted of the use of cathartics, cold compresses, ice bag, ichthyol and throat and nasal douching. At the end of three weeks the glands were scarcely larger than before the illness, and after three months seemed normal in size.

## *Tuberculous Form.*

CASE II.—Female; sixteen years; large for age. For ten years had been troubled with enlarged glands of the neck, and three previous operations had been done at eight, twelve, and fourteen years, with early recurrence of the condition. There were several scars on the left side of the face and neck and the skin was adherent to the greatly enlarged glands, involving the various cervical groups, as well as submental and parotid areas. These gave the appearance of a very marked parotitis, but ex-

amination showed numerous nodules varying in size from one quarter of an inch to two inches in the greatest diameter. The general health was good except for frequent attacks of tonsillitis and pharyngitis. Operation was done, using an "S"-shaped incision to expose the anatomy of the left side of the neck. Extensive adhesions were separated, various structures identified, the sterno-mastoid divided and about twenty-five glandular masses were removed. A second vertical incision over the parotid served to expose the overlying glands. The wounds were closed, leaving a small tube. Union was complete in two weeks. Patient on hygienic treatment has remained well since, except for two small glands that appeared six months later, and were removed under cocaine, from near the parotid. This was two and a half years ago.

CASE III.—Female; seven years of age; subject to tonsillitis; had enlarged cervical glands some months ago which were larger and smaller from time to time. They were not tender and did not fluctuate. Temperature normal. Treatment consisted of local use of ichthyol and general hygiene. Patient was not seen for ten days, when she appeared with a broken down discharging gland of the neck. This slowly healed, and two months later other glands became necrotic, and were incised and drained.

## *Pyogenic Form.*

CASE IV.—Boy; nine months old; poorly nourished. Had measles a month ago. Three weeks ago a swelling appeared below the jaw, slightly tender and not fluctuating; also a mass resembling granulation tissue under the tongue. This did not improve with counter-irritation, and four days later was incised, drained of a few drams of yellow pus and was nearly healed in ten days.

CASE V.—Female; aged two years; a swelling of right cervical glands, dated from an attack of diphtheria three months ago. When first seen the patient was fretful, temperature 101 degrees, with a tense, painful and inflamed swelling near the angle of the jaw on the right side. Hypertrophied tonsils, with irregular surface and deep crypts were present. Treatment consisted of catharsis, cold baths, cold compresses and chlorate of potash, two grains every four hours. One week later the inflammation had subsided, and three weeks later the glands had assumed a normal size.

These case histories represent some of the frequent types of inflammation



of the cervical gland groups common to children, and are conditions seen by every practitioner of medicine, and so are of every-day interest. The cervical glands, as holds true in regard to all glands, are placed in the course of the lymphatic channels. They have their afferent and their efferent vessels which divide into several smaller vessels in the body of the gland and may supply several glands. They, in brief, consist of these vessels, the lymphoid tissue and the lymph channels; and their structure and arrangement subjects them to pathological conditions that affect the organs and areas drained by the lymph and blood vessels. Therefore, in the cervical groups the glands are subject to infection from the teeth, gums, nares, tonsils, scalp, etc. They also may be involved in certain diseases that affect these areas, as the exanthemata, scarletina, measles; or in diphtheria, ulcerative diseases, lupus, malignant disease and tuberculosis. An important physiological function of glands is their use as bacterial filters. As the mucous membrane of the cavities of the head is a most fertile field for the lodgment of all kinds of bacteria, this gland function is being constantly called into play in the case of the cervical groups. Diseases of these cavities in children being very common, one naturally finds cervical adenitis a common disease of childhood. These glands are subject to inflammation of a simple type, acute or chronic; suppurative or non-suppurative, tuberculous, syphilitic, and less commonly they may be the seat of malignant growth. An acute infection due to a specific bacterium whose point of entrance cannot be determined by any gross lesion, has received the name of acute glandular fever, a case of which has been briefly mentioned above.

The glandular system in children, moreover, holds a most prominent place in development, the glands being more active, and this development, when extreme, has acquired the term lymphatism. (Foster's Physiology, p. 1148.) Such children come of poor stock, and a history may be ob-

tained of a similar condition in the parents when young, or of syphilis, gout, alcoholism, or tuberculosis; in other words, any condition in the parents which causes the child at birth to have tissues of lowered resistance. Again, early mal-nutrition, rickets, or accidental diseases, may so lower the child's resistance that it becomes an easy victim to glandular diseases. Children whose nourishment is only too meager, whose surroundings are dark alleys and crowded tenements, who hardly experience a breath of fresh night air, except that which comes from dirty air shafts; and children reared in possibly crowded institutions, such ones are indeed fortunate if they escape infection. Autopsies show that more than half have suffered from some glandular disease, usually tuberculosis. The hypertrophied tonsil, with its irregular surface and deep crypts, together with the too frequent presence of post-nasal adenoid masses are a most fertile source of trouble, partly because of the easy lodgment in and entrance through them of bacterial infection and partly because of the mechanical obstruction to nose breathing. When the air can no longer pass through the nose, where it is warmed and filtered, and so partly freed of its dangers, it must of course enter by the open mouth of the mouth-breather, depositing its burden of disease-bearing germs upon the fertile bed of tonsillar, pharyngeal and bronchial mucous membrane. Once there, the only barrier is the sentinel glands. These will resist for a time, if the attack is weak or not too frequent, but in the end they too become involved and reaction takes place known as inflammation, the character of which depends on the kind of infection. When through disease this protection has yielded, the more vital organs fall before the attack and we have a victim suffering from any degree of pathogenic infection.

With the field thus prepared for infection, any of the several forms of adenitis may develop.

Acute glandular disease (Pffiffer's

Disease) is due probably to a specific germ. It arises often in children previously well, and the point of entrance cannot be demonstrated, though the nasopharynx may be suspected. It is essentially acute in its course, and sudden in onset, and accompanied by all the symptoms of a virulent infection. It runs a fairly definite course, usually does not terminate in necrosis of the gland, and will leave the patient as well as before as regards the glands. One attack does not predispose to a second. The course is not influenced by internal medicinal treatment.

Cervical enlargement begins on one side in the carotid lymph nodes, and later the opposite side is involved to a less degree. The swelling appears near the angle of the jaw and extends downwards. The appearance is of an even swelling situated lower than the parotid. The mass is distinctly nodular to the touch, the glands being enlarged to a varying degree. Other groups of glands are usually involved, as inguinal and axillary, the latter being often palpable and tender to touch. The duration of acute symptoms is from two to nine days, and suppuration is absent. Local treatment consisting of the use of an ice bag, ichthyol ointment (20 per cent. in zinc oint) and especially cold compresses is of much value. Also to be recommended are cold baths, catharsis, diet of water and a dilute milk formula, and supportive measures.

Adenitis due to a pyogenic infection usually follows as a complication of an acute process somewhere else. It may be of any degree of virulence, depending upon the nature of the germ, the physical condition of the child, phagocytosis, bacteriolysis, etc., and so may vary from a very simple infection strictly confined to the node itself, to a rapidly fulminating process involving the tissues of the neck, and resulting in a severe form of septicemia. This is strictly a surgical condition, and the treatment varies from the use of wet antiseptic dressings

with any necessary incising of fluctuating glands in mild cases, to the extensive multiple incisions, supportive treatment and possible use of vaccines and anti-toxins in the fulminating types. Death may result from the overwhelming virulence of the poison, otherwise a complete cure, with the exception of damaged glands and scarred areas may be expected.

That there is nothing new under the sun we may well believe as regards tuberculous adenitis at least, if we dwell upon this quotation from Celsus, "Scrofula is a tumor in which certain concretions below the skin, consisting of pus and blood, arise like small glands; these are particularly troublesome to the medical attendant, for not only do they excite fever, but they scarcely mature without difficulty, and whether treated by the knife or by medicaments, they again make their appearance near the old cicatrix, but much more frequently after being treated by the last; added to these they are of long continuance. They principally occur in the neck. With regard to local applications these are to be used which draw out or dissipate humor. Some employ caustics also, to corrode the part and form an eschar, afterward dressing it as an ulcer. Whatever the plan pursued it is necessary, after the ulcer is thoroughly cleansed, that the system be exercised and nourished until the healing process is complete. The rustics had discovered that a cure resulted by eating a snake." (Mans. of Aul. Com. Celsus, by G. F. Collins.)

Tuberculous glands appear in children of lowered vitality and in those especially who are afflicted with hypertrophied tonsils and the train of conditions accompanying them. This disease is chronic, subject to exacerbations, spontaneous cures, or progressive relapses. The glands present a painless swelling, accompanied by moderate subjective symptoms, as failing health, loss of weight, slight evening fever and acute attacks of tonsillitis, etc., tend to spur on the disease. As the condition advances the glands, because of this rapid growth and poor



central blood supply, become cheesy. This necrotic mass may remain quiescent, and beyond the complete destruction of the gland and the unsightly appearance may cause no trouble. A mixed infection, however, or more extensive necrosis, may lead to abscess formation, which, if untreated by the knife, will force its way through the neck tissues and result in typical tuberculosis ulcerations. Treatment therefore naturally reduces itself to the following: All unhealthy or pathological conditions in the nose, mouth pharynx, etc., such as necrotic teeth, hypertrophied tonsils, chronic rhinitis, etc., should receive appropriate treatment. With these in as normal a condition as possible, the child's physical well-being should receive closest attention. Nourishing diet, fresh air twenty-four hours a day, often a change of climate, tonic, iodid of iron, cod liver oil and fats, baths and exercise; in short, the best principles

of hygienic life should be called to his aid. Such measures will often make the call for surgery unnecessary. An important point to be remembered is that autopsies show that most patients who have suffered from cervical adenitis of the tuberculous type, have involved in this condition the bronchial glands. These are beyond the reach of the knife. When, however, the measures mentioned above fail, when the glands become necrotic, or in spite of treatment the disease is progressive, when by their continued presence they are a source of danger in causing a more general tuberculous process, or by the rupture of an abscess will cause unsightly scars, then surgery should be resorted to to remove the last vestige of the diseased focus. Finally, it may be stated that while it may be resorted to in order to be doing something, the use of local applications of iodine, ichthyol, etc., is of at least very questionable value.

## TRANSPOSITION OF THORACIC AND ABDOMINAL VISCERA.

By ARTHUR C. JACOBSON, M.D.

BROOKLYN, N. Y.

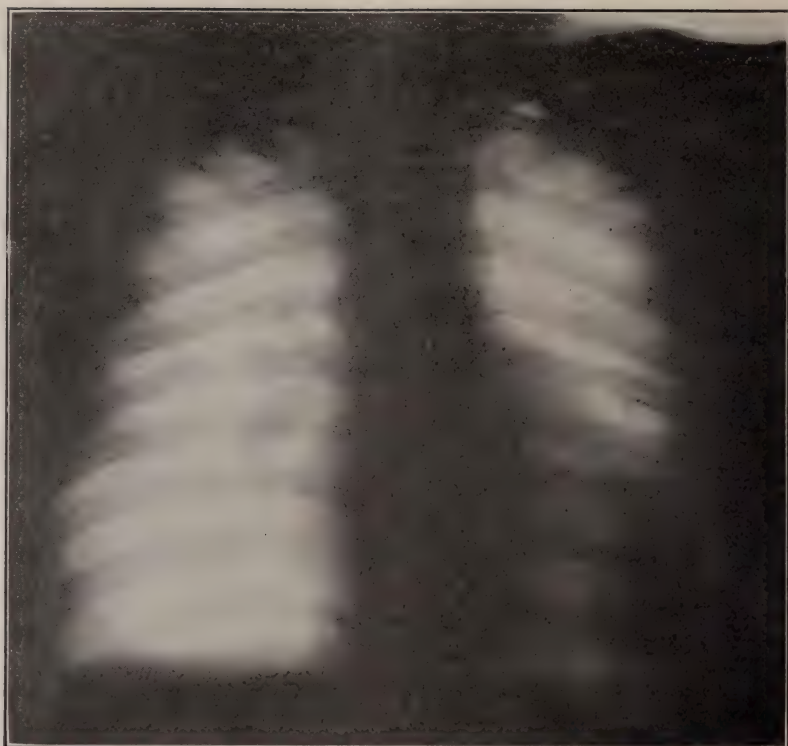
THE anomalies herewith reported exist in the person of a well-developed adult male forty-one years of age, five feet, seven inches in height and of Danish progeniture. He weighs one hundred and sixty-five pounds and at the present time suffers no incapacity by reason of his curiously disposed organs. He is the father of four living children, none of whom exhibits any anatomic variations. A fifth child died five years ago of diphtheria. Concerning its viscera the writer knows nothing.

Mr. J. states that he could not walk until he was five years old and that as a child he was very frail and weak. His weight at birth is given as four pounds. There is no history of any disease. At the age of fourteen he fell from the upper rigging of a ship

into the water, but this fact can have no bearing upon conditions which are clearly congenital. His father died at the age of forty-five, he thinks of tuberculosis, his mother at the age of thirty-two, directly after a premature delivery; cause of death unknown. A sister died at twenty, cause also unknown.

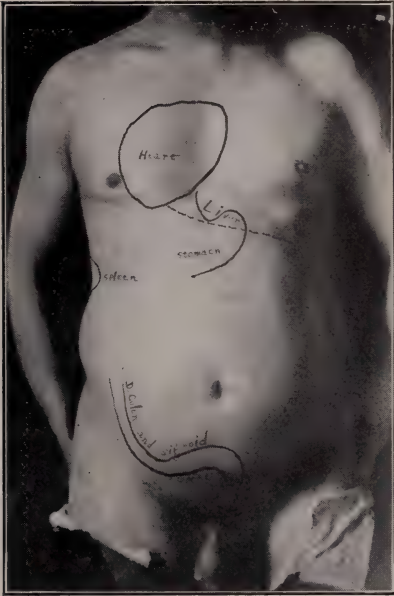
There is nothing abnormal about the pulse, respiration or digestive functions. Inspection shows nothing striking except a transposed apex beat and a relative prominence of the right chest corresponding to the area of cardiac dullness, though mensuration shows no difference. This prominence is observable both from the front and in profile. The heart is functionally normal.

The dexiocardia was discovered





first, in the course of an examination of the chest during the existence of a simple bronchitis. Further examination revealed transposition of the



spleen, liver and stomach, all these organs being otherwise normal. All the findings have been checked and corroborated by Drs. Harry W. Lincoln and Charles Eastmond. The former gentleman transilluminated the stomach, enabling the reporter to trace its outlines with the dermatographic pencil. The skiagrams were made by Dr. Eastmond.

Dr. Thompson J. Trueman suggested to the writer that it might be worth while to study the relations of the colon, whereupon Dr. Eastmond made a skiagram of the abdomen after an injection of bismuth. This revealed the descending colon upon the right side. By inference, the appendix must also be transposed.

Auscultation, of course, shows the pulmonary, tricuspid, mitral and aortic valves occupying sites corresponding, *mutatis mutandis*, to those ordinarily met with. As said before, all are functionally normal.

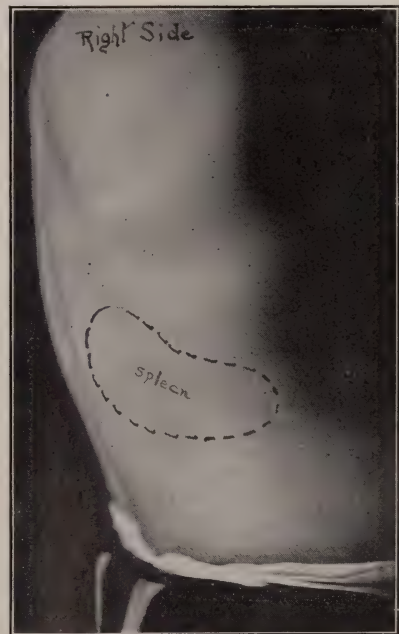
It will be noticed upon referring to the cardiac skiagram that the dia-

phragm is upon the same level on both sides. Theoretically, it should be higher on the left, since under normal conditions it is higher on the right.

The testicles are also transposed, if the facts that the right spermatic cord is about three quarters of an inch longer than the left and that the right testicle consequently hangs lower than the left be regarded as reasonable evidence when considered in conjunction with the general visceral transposition.

Teratologically the case represents the survival into adult life of an example of what Hirst and Piersol classify as a heterotaxic malformation—*situs viscerum inversus*.

In the *Medical Record* of January 22, 1910, Pollock and Jewell report a case of *situs viscerum inversus totalis* and state that up to 1863, 70 complete cases had been reported. In 1895, 195 cases of visceral transposition had



been collected. Since 1895 there have been 128 articles on the subject. Pollock and Jewell, however, do not state what proportion of the total were

complete, save the 70 cases noted above. Their case occurred in a woman 44 years of age and was autopsied.

The author's sincere thanks are due to Drs. Lincoln and Eastmond for

their co-operation in establishing the validity of his findings, to Dr. Trueman for his suggestion in respect to the colon and appendix, and to Dr. Nathan T. Beers for the topographic illustrations.

## THE RATIONAL TREATMENT OF SO-CALLED INOPERABLE UTERINE CANCER.

By WALTER B. CHASE, M.D.

Visiting Surgeon Bethany Deaconess Hospital; Consulting Obstetrician and Gynecologist to the Long Island College Hospital; Consulting Gynecologist to the Nassau Hospital, and the Jamaica Hospital.

BROOKLYN-NEW YORK CITY.

THE treatment of uterine cancer when it has reached the so-called inoperable stage, seems in the vast majority of cases, to be limited to the vaginal douche and the internal administration of opiates. These two expedients appear to most practitioners as affording all the relief they are able to bestow on its unfortunate possessor. When it is remembered that reliable statistics of registration areas show that one woman in eleven dies of cancer, and that after the age of thirty-five the mortality reaches one in nine, the magnitude of its destructive influence, and the distress and suffering it occasions stands forth in all its hideous proportions, not taking into account the deaths from this cause which are not correctly reported. It is safe to affirm that no other disease makes its unfortunate possessor so unbearable to herself and her friends, and inflicts such terrible suffering on its unfortunate victim. It seems incomprehensible, when the sympathy and resources of the public are laid under contribution to most other diseases, that these cases go on to irremedial death, without systematic human effort to administer to their necessity either in hospitals or homes, save when the possession of ample resources makes such care possible: What can be done for these unfortunates? First the humane sentiment of every community, if wisely guided, should provide hospitals and

care, for these neglected cases, as certainly will be done when enlightened public opinion is directed in proper channels. What then in the light of present knowledge may be done, medically or surgically, for these cases?

First, the use of the thermo-cautery; second, the use of radium; third, the application of the Roentgen Ray; and fourth, the daily local aseptic dressing.

The writer believes that the suffering of cancer is due principally to the pressure of the malignant growth on incarcerated nerve structures, and to the want of cleanliness of ulcerating surfaces; and that relief comes from the removal of all diseased tissue as far as possible and persistent cleansing of ulcerating surfaces.

The objection to strong escharotics in the treatment of cervical or corporeal cancer, is first the impossibility of limiting its corrosive action, and second, the atrocious and persistent suffering occasioned. It is in this connection that the use of a thermo-cautery is of the highest value.

*First.*—If used as it should be under anesthesia, there is commonly little or no pain following its use.

*Second.*—Through heat on the parts invaded by the disease, short of actual disintegration there is evident inhibition if not destruction of pathogenic germs.

*Third.*—The absorbent vessels are effectively closed.



*Fourth.*—The systemic infection is usually diminished—sometimes disappearing for a longer or shorter period of time.

*Fifth.*—In occasional cases (more often of cervical cancer) unexpected recovery has followed its use.

The statistics of the late Dr. John Byrne, of Brooklyn, show that in 367 cases of uterine cancer (not selected cases) operated on by the thermo-cautery, at the end of five years over 19 per cent. of cases were yet alive; unequalled it is believed by the statistics of any other operator by any other method, even selected cases. The writer's results are equally satisfactory. An added value of this form of treatment lies largely in the fact it can be reapplied from time to time as is deemed expedient. Cases of this class followed by daily dressing with oxyd-zinc gauze, and gentle irrigation with permanganate of potassium, or the creasol compounds, may be carried to the end, with greatly diminished, and in some instances, with but little pain. Besides the exhausting influence of repeated hemorrhage is much diminished, and the general comfort of the patient promoted.

In hospitals the electro-cautery can usually be installed and used with proper platinum knives with great satisfaction; though the Pacquelin-cautery with similar platinum accessories can be used with effectiveness, and outside of hospital practice one is usually restricted to the Pacquelin-cautery. Tact and skill in the use of a proper speculum so as not to impinge on diseased surfaces (often the Sims with the patient in the Sims position), and the parts protected from burning by asbestos paper, will make possible the safe removal of diseased structures without troublesome hemorrhage, and include the destruction of tissues not removable with a knife or by the use of caustic.

Boldt has devised a tubular speculum for the use of the thermo-cautery, so constructed that a stream of cold water traverses the hollow spaces in

the speculum preventing risk of burning of the vaginal wall.

In a general way it may be stated, that nearly every case of cervical or uterine cancer, save in the final stage, may be treated by the thermo-cautery, with advantage and resulting comfort. The more diseased structure removed the greater the benefit. The first results are diminution of pain, lessened discharge, and a healthier appearance of granulating surfaces. As a rule, if there is no burning of the mucocutaneous surfaces, there is little or no pain as a result of the operation. The critical question is the extent to which the diseased tissue can be removed without injury to the bladder, ureters, and the intestinal tract. It has not been my misfortune to injure any of these structures by the use of the cautery, though the possibility of it should be kept in mind, and explained to the friends in advance of the operation, for such an accident might be no evidence of lack of skill on the part of the operator. The accident to my knowledge has happened to one of the most distinguished operators of our country. Dr. Byrne states he had no *primary mortality from the operation.*

With due care the risk is so little as to be practically negligible. Some prerequisites are necessary, perfect anesthesia, capable assistants, proper apparatus, adequate protection of the vagina from burning, great patience in the progressive steps in the application of the knife at a dull red heat, so as not to burn the tissues so rapidly as to provoke hemorrhage, and to cook it sufficiently to destroy as far as possible malignant structures, and the exercise of judgment and skill in the area of structures to be removed. With care and experience it is frequently possible to remove all of the cervix, and most of the body of the uterus (when involved) save a little more than a shell of the peritoneum.

The nature of the attack will be determined by the extent of the disease. If the cervix is intact (or nearly so) it may be seized by a strong double velsella for purposes of downward

traction, or if insufficient for this purpose a strong double tanaculum opening outwards can be introduced within the cervical canal for a similar purpose. In applying the cautery knife, the incision encircling the cervix should, if possible, be above the growth, and if need be reaching to the utero-vaginal junction. The traction should be even and constant while the cautery knife slowly eats its way through the tissue near the circumference of the uterine body, but inside the peritoneal covering. To make the cautery knife effective, it should be kept in slow motion up and down or laterally, otherwise it is likely to provoke hemorrhage and delay progress, at the same time keeping it free for the eschar. If hemorrhage happens, which is always a troublesome possibility, a small gauze sponge saturated with diluted acetic acid, or of a solution of adrenalin carefully applied with pressure, usually controls the bleeding until the slow reapplication of the cautery closes the blood vessels. If after all that has been accomplished by this step has been done, and it is found that infected portions of intra-uterine structure remains, a round, dome-shaped instrument can be cautiously introduced into the uterine canal and further cauterizing be facilitated. So also can infected areas of disease on the vaginal wall be removed by the curved platinum knife. When the disease is far advanced and much vaginal involvement is present, the cancerous structure should as far as possible be removed by the same method, but by slow progressive steps, or the application of a strong curet may be applied following with the cautery knife. Even in these later stages enough of the involved structure can be removed to quiet or obtund pain, check or control hemorrhage, and lessen in greater or less measure the discharge from diseased surfaces, thereby diminishing the suffering and the rapid tendency to exhaustion. Daily irrigation and dressing of the parts must be carefully persisted in.

As yet the exact status of the value of radium is not known, while my personal experience is insufficient to enable me to speak *ex cathedra*, but of its safety and value in certain cases I am thoroughly convinced. Its power to diminish the proliferating cell growth is undoubted, and that malignant structures under its use with radium of a relatively high radio-activity gives hope that much that has been claimed for it will prove true. Unfortunately, its high cost makes use almost prohibitive.

Regarding the efficacy of the X-ray treatment in carcinomatus disease, there seems to be a wide diversity of opinion. In my personal use of this agent in uterine cancer, I am not wholly decided, though in cases for a time benefits seem to follow its use. While it is true that proper application of the agents mentioned should not be carried beyond conservative limits, the fact remains that their wise use guided by discrimination and judgment are at present the best agents we have to combat this disease, and who will dare to affirm that the end to be gained not only justifies the means, or that for humanity's sake this method of treatment should not become general?

Following or coincident with the use of these several remedies the mixed serum of erysipelas and prodigrosus may be employed. Coley says it acts to inhibit the recurrence of carcinoma.

While study and investigation give hope that serum therapy will bring a radical cure, there is *ad interim* every reason why the diffusion of knowledge among women should be inculcated by every legitimate method, until physicians and women are alike awake to the strategic importance of early investigation and accurate diagnosis of conditions which demand careful scrutiny and perhaps the assistance of some one especially fitted by observation, study and experience in the management of these cases, in the hope that early radical measures may anticipate the inevitable approach



of the period when all but palliative treatment is impossible. So long as procrastination supplants the imperative need of prompt and exact diagnosis, so long will the roll of mortality tell its tale of hopeless woe. Added to this the time is ripe, when in every community, some plan of concerted action should be adopted in which the medical profession, public spirited citizens, and intelligent women should in some appropriate and effective way, commence a system of education among women whereby they should be informed of those symptoms which make absolutely imperative such examination as would reveal or exclude the early symptoms of malignancy. If the lethargy of indifference on the part of some of the medical profession, and the false security of women which such symptoms as have been enumerated, could make way for concerted action on the part of both to know the truth and that early, a new hope would spring in hearts which are now utterly sad. This is the crux of the whole subject. Every investigation, intelligently and thoroughly pursued, to the end that radical treatment might be undertaken in suitable cases or when such a period has passed, the use of palliative treatment as will afford the greatest possible relief from suffering. If space permitted I would give more in detail the results of my own experience in treating these cases, but will refer to three cases, which I copy from a paper I read on this subject, before the Section of Obstetrics and Gynecology of the American Medical Association, at Atlantic City, June, 1909, and published on December 4, 1909, in the *Journal of the American Medical Association*. In the discussion following the paper participated in by Kelly, Boldt, Frederick, Stone, Polak, Wetherill, and others, the fact becomes apparent that the use of the thermo-cautery as recommended and so successfully practiced by Dr. Byrne is becoming recognized as the most effective method of treating uterine cancer, when the period for radical measures

has passed. Further, there was evidence of a sentiment favoring the diffusion of specific knowledge among women, of the early symptoms attending the presence of uterine cancer. The first two cases herewith reported were of the same type of carcinoma and instructive in showing the modifying influence of palliative treatment by the thermo-cautery. In none of the cases was any hope held out to the patient of ultimate cure.

CASE I.—The patient, a married woman, aged 43, entered the Skene Sanitarium, in March, 1901, with a cauliflower excrescence of the cervix as large as a man's fist. She had had numerous conceptions all of which terminated in miscarriages; but as these were intentionally procured there was a well grounded suspicion that her disease was related to the incident traumatism. This growth was reflected on the vaginal wall antero-posteriorly and laterally, which forbade a primary effort at hysterectomy. On March 14th I removed the growth by the galvano-cautery and amputated the cervix at the vaginal junction. The surfaces healed kindly, save a small area on the uterine stump about the size of a silver half-dollar. On May 21st, following, the patient re-entered the sanitarium and I performed an abdominal hysterectomy. Prior to this operation she was weak, anemic and in poor physical condition. Her convalescence was satisfactory. She was kept under monthly observation by her physician, and in May, 1902, a year later, there appeared at the seat of the vaginal cicatrix a nodular mass rather larger than a silver twenty-five cent piece. At this time she entered the Memorial Hospital and I removed a button of tissue opening from the vagina into the peritoneal cavity, the size of a silver half-dollar. I examined her during the past year and she is in perfect health, with no sign of the return of the growth.

Case II.—The patient, a married woman, aged 46, German, multipara, dated her trouble to a miscarriage, seventeen years previously. She had a large, bleeding, ulcerating cauliflower excrescence of the cervix, extending to the vaginal walls, which nearly filled the vagina. The discharge was offensive and the patient's health was seriously impaired from the frequent hemorrhages, associated with marked cachexia. She entered the Memorial Hospital September 23, 1902, and on the 25th I removed the entire growth by the thermo-cautery. In two months' time it had healed under daily dressings, save for a cup-shaped cavity three-quarters of an inch in diameter and one-half inch deep. The patient's general health was greatly

improved. Owing to non-healing she had two more thermo-cautery operations in November, 1902, and June, 1903. In November, 1903, the disease having made some progress without materially affecting the patient's general health, Roentgen Ray apparatus was installed in the home and on every second or third day for nearly three months treatment was given. This was followed by the use of radium and the ulcerative process was greatly retarded, and the patient's general health fairly maintained with but slight pain, up to the time of her death, May 7, 1904. For several weeks previous to her death the normal anatomic relations between the vagina, bladder and rectum were altogether lost and the amount of gauze daily used to fill this cavity amounted to many yards. During the twenty-one months of attendance the patient was visited by myself or my assistants about 750 times. It is at once apparent that such attention is most exacting in its demands on the attendant, but it demonstrated the fact that almost entire freedom from pain was the result, and that it was worth all it cost.

CASE III.—During March, 1896, a married woman, multipara, aged 42, came under my observation with typical cancer of the cervix, accompanied with extensive involvement. Hemorrhage was violent and the patient was cachectic. She was greatly ex-sanguinated and very weak. She entered St. John's Hospital in March, and I did a high galvano-cautery amputation as soon as her health permitted. She made a slow but satisfactory recovery, as far as the healing and local symptoms were concerned, and after two or three months she was able to resume her family duties. In November of the same year she entered the Bushwick Hospital for extirpation of a large gland of Bartholin. At this time there was no sign of return of the cancerous growth. On June 16, 1897, she re-entered the Bushwick Hospital, being seven months pregnant. The disease had returned, springing up around the old stump. After watching its behavior, I feared, from the hardening and infiltration of the uterine and contiguous structures, labor might induce rupture of the uterus, and on July 18th, at the eighth month of pregnancy, I removed the diseased growth, which encircled the uterine outlet, by the thermo-cautery. No shock followed and the patient was delivered of a healthy living child on August 6th. Her convalescence from the confinement was satisfactory as was the healing after the cautery. She enjoyed good health for nearly a year. Then the growth reappeared and she entered the Central Hospital, June 21, 1898, and I removed as far as possible the cancerous mass which had returned. She returned home August 25th. The healing was not satisfactory and she died a few weeks later from cerebral embolism, which only antici-

pated the inevitable results of her condition.

It is my hope in the not far distant future to lay before the medical profession a more comprehensive discussion on the subject of so-called inoperative uterine cancer, in the hope it will facilitate such a dissemination of knowledge as will lead to an earlier and more effective management of these most unfortunate cases.

Appropos to this I append a brief abstract of my paper read before the Medical Society of the State of New York, January 26, 1910, entitled "The Duty the Medical Profession Owe the Woman with Cancer."

Whereas the appalling fact that statistics of registration areas show that one out of eleven of all women die of cancer, and that after reaching the age of thirty-five years, the mortality increases to one in nine; and that as most of these are cases of uterine cancer, the question arises, whether the medical profession does not owe an unfulfilled obligation to this most unfortunate class of sufferers.

While large benefactions and well organized efforts are ministering to the comfort of those suffering from tuberculosis, there is in this State no systematic humane plan to reach those more terrible cases, condemned to helpless suffering and torturing death.

There is substantial basis for the belief, that earlier recognition of the presence of malignancy, in these cases, would add something to the measure of relief to be obtained by radical or palliative treatment. Among these unfortunate women, are large numbers, whose resources make it impossible for them to secure proper medical advice or capable nursing. It is also painfully apparent that home and hospital facilities for incurables is entirely inadequate to meet the needs of society. It is farther a well demonstrated fact that appropriate palliative treatment, carefully and systematically persisted in, will relieve in larger measure the suffering of those doomed to certain death.

In view of these facts it is re-



solved, first, that the Medical Society of the State of New York, by its President, shall appoint a committee of five whose duty shall be to urge on all practitioners of medicine, in this State, greater care in making early diagnosis in cases of suspected uterine cancers. Second, resolved, that this committee be directed to devise some method, by which along ethical lines, women may be properly informed as to the reason why they should seek early professional advice in menstrual and hemorrhage disorders, and that they are farther instructed to consider some more comprehensive plan, whereby a general diffusion of appropriate and vital knowledge may be promulgated on this very important subject. Third, resolved, that this committee be directed to report its recommendations at the next meeting of the society. Fourth, resolved, that the treasurer of this society be directed to honor payment of bills incurred for printing and needful correspondence, (if not otherwise provided for), and that this committee be empowered to fill vacancies in its membership and appoint sub-committees if deemed expedient.

1050 Park Place.

### THE ARGUMENT OF PAINFUL FOREFOOT.

Why are the *straight inner borders of the shoe* and the *correction of hallux valgus* essential to the cure of *metatarsalgia*?

(1.) Unless there is shoe-room enough, at the proper place, the great toe cannot be brought to the normal straight line.

(2.) Unless the phalangeal bones

of the great toe are brought into a continuous line with the metatarsal bone of the great toe (correction of hallux valgus) there will be (a) mechanical limitation to flexion of the great toe at the metatarso-phalangeal joint, and (b) relaxation of the muscles which flex and adduct the great toe—flexor longus hallucis, adductor hallucis and transversus pedis.

(3.) Unless this mechanical restriction to proper flexion of this joint be overcome and unless this relaxation of the muscles named be corrected, by increasing the distance between the origins and insertions of the muscles, *i. e.*, carrying the insertions on the bones of the great toe back to their normal distance from their respective origins, the muscles named cannot regain their strength.

(4.) Unless the muscles named regain their tone and strength, important factors essential to the holding up of the metatarsal arch—the anterior arch—of the foot will not be available.

(5.) Unless measures be taken to retain and strengthen them when returned to their normal positions, this arch will not permanently be held up.

(6.) Unless the arch be held up painful pressure upon nerve filaments, due to the abnormal relations of the bones and fascia comprising the arch, will not be overcome.

(7.) Unless these pressures be overcome there will not be relief from the metatarsalgia.

Q. E. D.

(N. B.—The writer recognizes and uses certain palliative measures, but he calls attention again to his argument, which is, the *cure* of the conditions.)

WALTER TRUSLOW, M.D.

494 Washington Avenue.

## LONG ISLAND MEDICAL JOURNAL

A Forum for the Discussion of all Topics involving the Medical Profession and especially that of Long Island.

EDITOR-IN-CHIEF

PAUL MONROE PILCHER, A.M., M.D.

ASSOCIATE EDITOR

JAMES MCFARLANE WINFIELD, M.D.

EDITORIAL OFFICE:

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Further Information on advertising page 3

APRIL, 1910.

### THE TUMOR PROBLEM.

THE course of lectures on tumors given under the auspices of the Cancer Commission of Harvard University, and recently published in pamphlet form, gives a fairly accurate idea of the status of the tumor problem as it now stands. These lectures show that of late the experimental investigation of tumors and the problem of cancer considered from the standpoint of immunity, have taken foremost rank in the laboratories devoted to this work.

Many important facts have been demonstrated, but as yet the all important factors, the underlying causes of tumor formations and lawless and unlimited cell proliferation have not been discovered. New classifications have been proposed, but these are not without their objections, because they do not take into account the practical side of the question, the etiology and the treatment. The histological classification proposed by Mallory, naming the tumor according to the one essential cell in each type of simple tumor, leaving out of consideration the blood vessels and connective tissue of the stroma, would lead to

confusion. For example, the ordinary connective tissue cell or fibroblast produces a series of tumors ranging from the dense fibroma to the soft rapidly growing fibrosarcoma and myxosarcoma. The clinical history of these growths is entirely different, and therefore should not be classified together. The same objection may be offered to other of the recent forms of classification; they are more correct from the viewpoint of the pathologist, but do not fit the clinical picture of the growth.

Concerning the diagnosis of tumors, we already know that there are no specific symptoms by which new growths may be recognized. Tyzzer, of the Harvard Medical School, states that with certain of the experimentally inoculable tumors it has been found that the serum of the animal in which the tumor is growing possessed hemolytic properties for the red blood corpuscles of normal individuals. The corpuscles of the tumor animal are not hemolyzed. It has also been found that the serum of persons suffering from early malignant growths showed marked hemolytic properties, whereas the serum of healthy persons did not. It is true, however, that the serum in other diseased conditions has been found to be hemolytic.

From the pathologist's standpoint the lines between benign and malignant growths are still ill-defined, so that we feel that when we remove a growth which is clinically malignant and the pathologist returns a report that there is no evidence of malignancy there is some justification in the claims made by the clin-



ician that the microscopic findings alone are not conclusive.

Wolbach, Director of the Bender Laboratory, in his lecture on the etiology of tumors, presents data in support of the belief that the congenital tumors and tumors of infancy and early childhood most commonly take origin from isolated or misplaced cells. In the second part of his lecture he shows that in the cases of X-Ray carcinoma and a few other instances, there is a proved causal relationship between malignant tumors and antecedent pathological processes.

Judging from these lectures it would seem that there is a tendency to disregard the parasitic theories of the etiology of cancer, and more attention is being given to certain physiological factors or substances in the blood as causative agents.

## THE RELATION OF THE COUNTY SOCIETY TO THE STATE SOCIETY.

THE editor of the JOURNAL has been informed by the President of the State Society that the property rights of the various County Societies are not interfered with in any way by the amalgamation of the County Society with the State Society. Chapter 544 of the Laws of 1904 of the State of New York provides that each County Medical Society shall have full and unrestricted power of disposition and control over its real and personal property. This will be of especial interest to some members of our Society who have felt that the Library of the Medical Society of the County of Kings was not entirely secured from interference by the State Society.

## MEDICAL NEWS.

Edited by JAMES M. WINFIELD, M.D.

**Hospital for Drunkards**—The Grady-Lee Bill before the State Legislature at Albany contemplates for the treatment of habitual drunkards an institution together with additional features which provide for more extended probation work in connection with habitual drunkenness. The problem is one for both social and medical experts, and both of these agree that an institution in which the habitual drunkard can be surrounded with abundance of light, air and outdoor work, and where he can be kept from alcoholic liquors for a somewhat extended period of time, offers the only possible means of reformation for this class of persons.

It is interesting to note that a bill has passed the State Legislature of Pennsylvania, providing for a State Hospital for the treatment of the habitual drunkards, while the State

of Massachusetts has had for the past ten years a hospital along this same line, producing great and lasting results.

**Seney Hospital**—With the completion of the top story of the west wing of the Methodist Episcopal Hospital and the public inspection of it yesterday, the original plan of the institution was brought to a finish. There were no formal exercises attending the opening of the newly renovated wings, nothing but the coming of a large number of visitors and their inspection of the work.

**The State Insane**—The annual report of the State Commission in Lunacy shows that the number of insane committed in the public and private hospitals at the close of the fiscal year was 31,541, of whom 15,107 were men and 16,434 women.

The net increase in all institutions was 1,084; in State hospitals alone, 1,015. The total cost of maintaining the insane during the year amounted to \$6,899,287. The commission submits an estimate, for 1910, of \$8,420,315, \$2,385,315 of this sum being required to provide additions to existing hospitals and for the beginning of work at the newly-acquired site at Yorktown. The estimated cost of maintaining each patient during 1910 and 1911 is \$190 a year as against \$185 in 1907, and \$184.44 in 1908.

**Hebberd in State Charities**—Robert W. Hebberd, formerly Commissioner of Public Charities of New York City, has been appointed Secretary of the State Board of Charities at a special meeting of the board here yesterday. Mr. Hebberd, who was Secretary of the board from 1896 to 1906, when he became Charities Commissioner, will draw a yearly salary of \$5,000. He assumes office the end of March.

**Consumptives to be Concentrated**—The New York City Board of Estimate and Apportionment recently took steps toward the concentration of consumptive patients in one hospital. This plan will save the city a large amount of expense annually. This board has been inspecting the property near Otisville, Orange County, where the new sanatorium is to be erected unless too strenuous opposition is made on the part of the residents of that section.

**Crusade Against Spitters**—Members of the New York City health squad have been traveling on trains, trolley cars and boats, warning passengers that they must use cuspidors and not spit on the floors of those vehicles. Many arrests have been made and fines imposed.

**Coroner's Physicians Under Civil Service Law**—A bill has been introduced into the Legislature providing that there shall be four coroner's physicians in Manhattan, four in Brooklyn, two in Queens, two in the Bronx and one in Richmond. The

vacancies are to be filled by the coroners in the boroughs in which they occur, subject to the civil service law. The salaries are to be fixed by the Board of Estimate and Apportionment, but are not to exceed \$3,000.

**Drinking Cup Abolished**—The State Board of Health has published a rule prohibiting the use of the common drinking cup on railroad trains, in railroad stations and in public and private schools anywhere in the State of New York.

**Dr. Abraham Jacobi**—The Associated Alumni of Mount Sinai Hospital, New York, gave a banquet at the Hotel Knickerbocker on February 26th in honor of Dr. Jacobi, who has held continuous service with that hospital for fifty years.

On May the 6th the medical profession of the State of New York will hold a reception at the New York Academy of Medicine to celebrate Dr. Jacobi's birthday.

**Honor Dr. Trudeau**—Many men and women of prominence met at Saranac Lake recently to celebrate the silver anniversary of the First Open Air Sanatorium, and many others from all parts of the civilized world sent messages of congratulation to Dr. Edward L. Trudeau. Dr. Trudeau made an address in which he gave the history of his pioneer work in the open-air treatment of tuberculosis in America.

**Gift to Adirondack Cottage Sanatorium**—One of the many congratulatory letters that Dr. Edward L. Trudeau received in connection with the celebration of the twenty-fifth anniversary of the institution was one from Mrs. E. H. Harriman containing in addition an offer of \$25,000 for a research and medical fund for the support of the sanatorium laboratory. The fund is to be known as the E. H. Harriman Research and Medical Fund of the Adirondack Cottage Sanatorium. The trustees of the institution accepted the gift.



**Progress Against Tuberculosis**—State Health Commissioner Porter has approved the Pendell Farm Site for a tuberculosis hospital for Poughkeepsie. The purchase price is \$10,000. The institution will accommodate forty patients.

**A Medical Reading Club**, instituted by Dr. William B. Brinsmade, Vice-President of the Associated Physicians, meets once a month at the office of Dr. Brinsmade. There are about a dozen members, including Dr. Brinsmade, Dr. W. P. Pool, Dr. W. H. Rankin, Dr. A. Murray, Dr. J. Watt, Dr. C. R. Hyde, Dr. F. Tilney, Dr. J. C. Rushmore and Dr. Joseph Raphael. Each member subscribes to an important journal and each month presents to his fellow members an epitome of all the important articles appearing in his particular journal for information and discussion. The idea is a most excellent one.

**The Long Island Alumni Association of the College of Physicians and Surgeons**—At the fourteenth annual dinner held February 17th the following officers were elected: President, Dr. J. P. Glynn, Vice-President, Dr. F. B. Cross, Secretary, Dr. Charles Eastmond, Treasurer, Dr. W. C. Woolsey; Trustees, Dr. Stephen Lutz and Dr. Alfred Bell.

**Dr. O'Hanlon Honored**—John Thatcher, who was recently appointed Commissioner of Buildings in Brooklyn, and has been for several years President of the Board of Managers of the Kings Park State Hospital, presented to Dr. O'Hanlon a handsome silver tea service.

Dr. O'Hanlon is about to leave the Kings Park Hospital to take charge of a private hospital at Riverdale, 252d Street, New York City, and it was in token of the love and esteem of both officials and employees that the gift was presented.

**Dr. John L. Harrington**, of Pittsburgh, Pa., has been appointed junior assistant physician at the Central Islip State Hospital.

**Dr. William Browning** has returned from a month's visit to Cuba.

**A Private Surgical Hospital**—Dr. Lewis Pilcher and Dr. Paul Pilcher announce that the alterations in their former residence, 145 Gates Avenue, corner of Grand Avenue, Brooklyn, N. Y., have been completed, and that henceforth the entire building will be devoted to their surgical work. The new hospital is equipped with two operating rooms, sterilizing room, high speed electric elevator, and all the conveniences for clinical work.

**Dr. Frederick L. Benton**, U.S.N., a member of the Associated Physicians, has been assigned to duty with the expeditionary forces of the United States now in Nicaragua, as Brigade Surgeon.

**Dr. E. M. Beery** announces his removal to 118 Gates Avenue.

**Dr. Paul F. Cavanagh** has moved to 1115 Bergen Street. Tel. 1390 Bedford.

**Dr. William H. Davis** begs to announce that after January 1, 1910, he will hold office hours at 67 Hanson Place by appointment only.

**Dr. Otto Frischbier** has removed his office to 690 Bushwick Avenue. Tel. 2299 Bushwick.

**Dr. W. A. Griffith** announces his change of address to 76 Hart Street.

**Dr. Lefferts A. McClelland** announces that he has opened offices at No. 2 Rector Street, New York City, where he will treat exclusively the diseases of the ear, nose and throat, from 12 until 1.30 (Saturdays and holidays excepted) and by appointment. Tel. 2933 Rector.

**Dr. Harry Meyersburg** announces his removal to 904 Avenue U. Tel. 1693 Coney Island.

**Dr. Victor H. Pentlarge** begs to announce the removal of his office to 380 Sterling Place, between Underhill and Washington Avenues. Tel. 6363 Prospect.

**Dr. Edward M. Thompson** announces his removal to 40 East Fifth Street, Kensington Park, Brooklyn. Tel. 2530 Flatbush.

# ASSOCIATED PHYSICIANS OF LONG ISLAND

## STANDING COMMITTEES FOR 1910

### *Scientific Committee,*

Dudley D. Roberts, Brooklyn, *Chairman.*

Walter G. Frey, Long Island City.      Hugh Halsey, Southampton.

### *Historical Committee,*

William Schroeder, Brooklyn, *Chairman.*

James S. Cooley, Glen Cove.      Walter Lindsay, Huntington.

### *Publication Committee,*

Paul M. Pilcher, Brooklyn, *Chairman.*

James M. Winfield, Brooklyn.      William H. Ross, Brentwood.  
Louis N. Lanehart, Hempstead.

### *Legal Committee,*

William E. Butler, Brooklyn, *Chairman.*

Edwin S. Moore, Bay Shore.      Robert J. Morrison, Brooklyn.

### *Membership Committee,*

O. Paul Humpstone, Brooklyn, *Chairman.*

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| George F. Little, Brooklyn.       | Grant Stanley, Sea Cliff.         |
| Harris A. Houghton, Bayside.      | Thomas B. Spence, Brooklyn.       |
| Frank H. Clark, Brooklyn.         | Harold Hewlett, Babylon.          |
| Adolph G. Rave, Hicksville.       | Clarence R. Hyde, Brooklyn.       |
| John E. Jennings, Brooklyn.       | William L. Mulcahy, Far Rockaway. |
| Frank C. Dildine, Port Jefferson. |                                   |

### *Public Health Committee,*

William A. Baker, Islip, *Chairman.*

|                                     |                                 |
|-------------------------------------|---------------------------------|
| James A. Hutcheson, East Rockaway.  | Clarence A. Baker, Brookhaven.  |
| J. F. Michels, Farmingdale.         | David Edwards, Easthampton.     |
| Gustav A. Fensterer, Flora Park.    | C. C. Miles, Greenport.         |
| Edwin Carman, Freeport.             | William B. Gibson, Huntington.  |
| William Rhame, Hempstead.           | John P. Heyen, Northport.       |
| Robert Lorent, Hempstead.           | Frank Overton, Patchogue.       |
| Millard M. Slocum, Lawrence.        | Alan G. Terrell, Riverhead.     |
| Guy F. Cleghorn, Mineola.           | Charles E. Wells, Sag Harbor.   |
| Joseph H. Bogart, North Hempstead.  | F. E. Benjamin, Shelter Island. |
| William J. Burns, Oyster Bay.       | Guy H. Turrell, Smithtown.      |
| Arthur D. Jaques, Rockville Center. | John Nugent, Southampton.       |
| A. B. Leggett, Babylon.             | Hugh Halsey, Southampton.       |
| Frank D. Peterson, Southold.        |                                 |

### *Entertainment Committee,*

William H. Madren, Brooklyn, *Chairman.*

|                               |                                |
|-------------------------------|--------------------------------|
| Irving S. Barnes, Oyster Bay. | Henry MacDonald, Morris Park.  |
| William F. Dudley, Brooklyn.  | Jacques C. Rushmore, Brooklyn. |



## REPORT OF THE HISTORICAL COMMITTEE.

**Oliver Morse Dewing, M.D.**, born in Westminster, Conn., on July 18, 1862, and died at Flatbush, N. Y., March 15, 1910. He was the son of Andrew Dewing and Eunice Williams Cross, both of Connecticut.

His early education was received at Williston Seminary, Easthampton, Mass., graduating M.D. from the College of Physicians and Surgeons, New York, in 1887.

He was connected for a time with Demilt Dispensary as an assistant to Raynold W. Wilcox, M.D. In 1889 he received the appointment of Assistant Physician to the New York Insane Asylum. In the same year he was transferred to the Kings County Asylum. In 1897 he was appointed Superintendent of Kings Park and Flatbush Insane Asylums; these institutions were separated in 1902. Dr. Dewing remained at Kings Park until 1904, when he became Superintendent of the Flatbush State Hospital, remaining in this position until the time of his death.

He connected himself with the Medical Society of the County of Kings in 1904 and the same year with the Associated Physicians of Long Island. He was also a member of the American Medico-Psychological Association, Brooklyn Society for Neurology, Kings County Lodge, No. 511, F. & A. M., and the Midwood Club.

Dr. Dewing is survived by his widow, Elizabeth Dewing, nee Ogden, a son, Edward Ogden, and two daughters, Eunice and Dorothy Dewing.

At a stated meeting of the medical staff of the Long Island State Hospital, held March 22, 1910, the following resolutions were adopted:

WHEREAS, It has pleased an All-wise Providence to take from our midst our beloved superintendent, Dr. Oliver Morse Dewing, who passed away after a week's illness of lobar pneumonia on March 15, 1910.

*Resolved*, That the medical profes-

sion has lost a valued member, the State Hospitals an able and efficient superintendent, the members of the staff a valued friend and colleague, and the patients under his supervision a sympathetic friend, whose genial good nature added much to their happiness and the betterment of their condition.

*Resolved*, That we desire to express to the family our sincere sympathy in this hour of sad bereavement, and

*Resolved*, That a copy of these resolutions be sent to the family, also for publication in the medical journals, and that it be filed with the records of this hospital.

**Martin Amador, M.D.**, born in Cienago, Colombia, Republic of Bolivia, on March 10, 1857, and died in Brooklyn, N. Y., March 13, 1910. His early education was received in the college of Aranjó, Colombia, his medical education in the University of the City of New York, receiving the degree of M.D. in 1878. This was followed by service in the Charity Hospital on Blackwell's Island during the years 1878-79.

Returning to Colombia, he accepted the position of Professor of Anatomy, Surgery and Physiology in the University of Cartagena. This position he held until 1884. He was also at different times Police Surgeon and Health Officer of Colombia, Consul-General of Colombia in Holland and Belgium, and Vice-Consul of the United States in Colombia.

He began the practice of medicine in this city in 1890, at which time he connected himself with the Medical Society of the County of Kings and in 1905 with the Associated Physicians of Long Island. He was also a member of the Union League Club, Knights of Columbus and the Church of the Sacred Heart.

It may be interesting to note that the father of Dr. Amador was Manuel Amador, a native of Colombia, and during the years 1867-70 was

President of the Republic of Bolivia. He was also related to Manuel Amador, M.D., first President of the Republic of Panama.

He is survived by his widow, Mary Amador, nee McElhinny.

**William Willett Moon, M.D.**, a native of Pennsylvania, died in Brooklyn, N. Y., March 15, 1910. Received the degree of M.D. at the University of Vermont in 1892.

During the years 1894-95 he was a member of the Medical Society of the County of Kings. During the greater part of his professional life he was connected with the Kings County Homeopathic Medical Society.

He was at various times physician to the Hudson River Insane Asylum, Metropolitan Hospital, Cumberland Street Hospital, Howard Avenue and the Twenty-sixth Ward Dispensaries.

**William Diehl, Jr., M.D.**, born in Brooklyn, N. Y., February 8, 1863, where he died on March 7, 1910. He was the son of the Rev. William

Diehl, and received his medical education in the New York Homeopathic College, graduating in the class of 1891. He was a member of the Kings County Homeopathic Medical Society and in practice in this city during his professional life. He leaves a widow, Selma Diehl, and two daughters, Selma and Gladys.

**Ora Clay Swift, M.D.**, University of Buffalo, 1900; a member of the Brooklyn Medical Society, and a member of the staff of the Bushwick and Mutual Hospitals; died at his home in Brooklyn, December 21, 1909, from pneumonia, aged 35.

**Gustav Liebermann, M.D.**, of 36 McKibbin Street, Brooklyn, in the Lebanon Hospital, Manhattan, of which he was one of the founders and the first Superintendent. He was born in Hungary in 1854, and was a graduate of the University of Budapest. He came to this country thirty-one years ago.

WILLIAM SCHROEDER, Sr., M.D.  
*Chairman Historical Committee.*



# TRANSACTIONS

OF THE

## BROOKLYN SURGICAL SOCIETY

*Regular Meeting, November 4, 1909.*

The President, J. RICHARD KEVIN, in the Chair.

DR. JOHN A. LEE exhibited a patient suffering from incipient Pott's disease of the third and fourth lumbar vertebræ with an X-ray photograph showing the lesions clearly.

### TWO CASES OF GALL BLADDER DISEASE WITH UNUSUAL SYMPTOMS.

DR. LEE presented the following cases:

Patient was suffering from colicky pain and tenderness in the gall bladder region of some hours' duration. She gave a history of indigestion, so-called, extending over a period of years. The pain was relieved by vomiting of bile, which Moynihan states are the classical symptoms of chronic gall bladder disease. Treatment consisted in relief of acute pain and application of ice-bag over gall bladder. The following day pain and tenderness over gall bladder were almost absent, but pain was general over the abdomen with especial tenderness over McBurney's point. Palpation was unsatisfactory owing to obesity of patient. Rigidity was present over rectus. Ice bag was applied to appendicular region. Highest pulse 88, highest temperature, 100 degrees. The next day the tenderness over the appendicular region continuing, the patient was removed to St. Mary's Hospital for operation. Six years previously she had undergone an operation for pyosalpinx. Operation disclosed that the appendix had been removed at former operation, but on palpation a very tense and much distended gall bladder was disclosed extending down toward the right iliac region. The wound was closed and an incision made over the gall bladder which was found distended with mucus and containing three

stones, one of which was in the cystic duct. Gall bladder was drained and patient made an uneventful recovery.

Case II.—Mary W. Age 47. First seen September 26th. Had an attack of severe colic referred to the gall bladder region. When seen in the morning pain and tenderness had disappeared; pulse and temperature were normal. Catharsis. This patient also gave history of Moynihan's symptoms of chronic gall bladder disease. Next morning pain and tenderness over appendicular region was acute. Deep palpation over McBurney's point produced exquisite tenderness. Temperature, 100 2-5 degrees. On removal to hospital temperature dropped to normal. It was deemed advisable to attempt to carry her through what seemed an acute appendicular attack without operation. Temperature remained normal or nearly so for two days. Tenderness remained marked and operation was decided upon. Under anesthesia a tumor could be palpated extending from the region of the gall bladder to the appendix. Incision over tumor showed a much distended gall bladder, thickened and infiltrated. Aspirating needle showed only mucus. On incision nearly a pint of fluid was removed, the first half mucus, the lower half thick, white, creamy pus, with several small stones.

The cystic duct was much distended and the tortuosity well shown. The duct was explored inside and out for further concretions without result. The appendix was removed through same wound and showed chronic inflammation. Gall bladder was drained in usual manner. For several days discharge of pus was profuse. Discharge gradually became watery in

character. No bile escaped and at present the sinus secretes very little and is all but closed up. Probably a cholecystectomy will be necessary to complete the cure in this case for it is likely that the cystic duct has been closed for a long time as a result of previous attacks.

#### INFRAORBITAL NEURALGIA.

DR. JOHN A. LEE presented a patient with the following history:

Patient was operated on three years ago for facial neuralgia. Most of the trouble started in the infraorbital nerve, but when attacks became well developed there was intense pain in all the branches of the nerve, supra-orbital, infraorbital and inframaxillary. Attacks were frequent and severe. It was deemed advisable to relieve the condition by removing as much of the infraorbital nerve as possible and then plugging the sinus with gold foil such as is used by dentists. The cure is now permanent after the lapse of three years. The presence of a foreign body has set up no signs of irritation. There is no involvement of the sensory or motor areas outside of the nerve involved. The neuralgia has never returned.

DR. WILLIAM FRANCIS CAMPBELL said:

The case reported here to-night by Dr. Lee has a very happy result. At the same time the same result might have been accomplished by alcoholic injections and the patient would not have the scar and would not have loss of sensation over distribution of the nerve for the reason that alcoholic injection does not destroy sensation. It destroys pain but not sensation.

In one case we had to inject twice over the supraorbital branch before cessation of pain occurred. Injection once over infraorbital branch seemed sufficient.

In another case which was operated on by the Abbe method (which there seems no justification for continuing, since the rubber tissue inserted has been found in many cases curled up

and displaced and pain returns after six months to a year), pain returned in the second division of the nerve and nerve was injected at foramen rotundum; four months have elapsed without thus far a return of the pain. A case injected a while ago in the third division at its exit was relieved with no return of pain. I think results of this kind are worth considering for the reason that the Abbe method has proven inadequate, gasserectomy is fraught with danger, and the only operative procedure worth considering is the method of Spiller and Fraser, which is resection of the sensory root—a method comparatively simple and uniformly effective.

#### HARELIP AND CLEFT PALATE.

DR. W. A. SHERWOOD reported the history of a boy ten years old, who was operated on when six months old by Dr. J. B. Bogart for harelip, at which time it was deemed inadvisable to attempt a closure of the cleft palate. In May, 1908 (when six years of age), patient was admitted to the hospital with a typical complete cleft of both the hard and soft palate, the cleft extending to within half an inch of the alveolar process of the superior maxilla and varying in width from half an inch near its anterior limit to  $1\frac{1}{2}$  inches at its posterior extremity. There was great difficulty in swallowing, patient being unable to take anything but liquid food, and, according to the statement of his mother, fully three-fourths of all food was regurgitated through the nose. It was almost impossible to understand a word which he attempted to speak. Operation was advised, and accepted by the child's parents, although nothing was promised as to the result of such an attempt. The technic followed was the same as that described by Peck in the *Annals of Surgery* in January, 1906. As a result of this operation there was a complete closure of the soft parts, but, owing to defective or insufficient arterial supply, the flap on the right side of the hard palate sloughed and was entirely lost leaving



an oval gap about an inch in length and three-fourths of an inch in width at its widest measurement. Patient returned to his home in Hartford, Conn., for a few months and in October, 1908, a second attempt was made to close in the defect with the result that only a small pin hole still remains at the junction of the hard and soft palates. There is great improvement in the patient's ability to swallow and there is practically no regurgitation through nose. Patient can now eat solid food and articulation is considerably improved. With proper teaching articulation will probably improve still further. The existing small defect is not deemed of sufficient importance to warrant further operative procedure.

DR. H. B. DELATOUR said in discussing Dr. Sherwood's case of cleft palate and harelip:

In those cases where a small opening persists or follows operation on cleft palate, Brophy uses tincture of cantharides for stimulating the edges. I have tried it and find it works well. Quite a large opening, large enough to admit the tip of the little finger will close on stimulation by tincture of cantharides.

#### UTERINE FIBROID COMPLICATING PREGNANCY.

DR. LONGSTREET reported the following case:

Woman; 33 years old, regular 28-day menstrual periods. For the last three months severe clotting and flow. For some time, approximately nine to ten months, occasional nausea, vomiting and flatulence with irregular bowel action, and of late much worse. Last regular period in April, 1909, and since then at varying two or three weeks' intervals a flow as stated, clotted and free. For last six months pain in pelvis and increasing rapidly. Dragging, aching, constant, from back to front in both inguinal regions and down thighs. Moderate leucorrhœa. For some time frequent urination day and night increasing. Married fifteen years; one pregnancy fourteen years ago terminating in a miscarriage at

three months; no missed periods since. Patient showed 60 per cent. hemaglobin, 3,000,000 red blood cells and 105,000 white blood cells.

She had been under care of a physician for over two years with tampons and douching.

Vaginal examination showed a mass immovable in pelvis, cervix anterior up behind symphysis; uterine body hard and with small nodules.

Abdominal examination showed a uterine body enlarged, hard on right side; small nodules to be felt and a small floating pedunculated body at fundus. Abdominal wall thinned and flaccid. While no positive signs of pregnancy present, because of palpation and appearance, a possible complication of pregnancy was stated.

Incision from umbilicus to symphysis, which had to be enlarged upward.

Some small adhesions to omentum and intestines ligated, pelvic mass peeled out and some adhesions tied off, and a supra-cervical hysterectomy done, removing the adherent and fibro cystic left tube and ovary. Cervical canal cauterized and small drainage tube sutured in place with plain catgut, pelvic flaps closed in, and a long, slightly congested appendix removed, after which closure of abdomen with layer sutures. Except for severe nausea and vomiting the first twenty-four hours, patient made a very uneventful recovery and now rapidly gaining strength and health of former years.

After operation examination of specimen showed an intramural or submucous fibroid of size of orange; a pedunculated mass of same size posteriorly, eight nodular masses subperitoneal and a pedunculated mass the size of a hen's egg attached to fundus with a pregnancy of about four months.

DR. J. C. MACEVITT said:

As the evening is early, I will say a few words regarding the case of Dr. Longstreet, in relation to fibroids complicating pregnancy. Some few years ago I saw a patient presenting small multiple fibromata of the uterus. Uterus was freely movable and hardly

presented above the pubis. These nodules ranged from the size of a hickory nut to that of a small walnut. The question was as to their removal. It is a disputed point among gynecologists and surgeons as to the necessity of removing fibromata of the uterus where they cause no trouble. Some men are very radical and maintain that no matter how small, a hysterectomy should be done or at least a myomectomy, to avoid subsequent degeneration. In this particular case, there was very slight dysmenorrhœa, menstruation was regular, lasting three days. I told her that it was the opinion of the majority of surgeons that it would be better to remove the fibroids. She said that unless it was necessary, she did not care to take the chances of removal. Personally I did not believe it necessary. The cervix was elongated, contained fibrous nodules, the os of the pin hole variety. I did not believe that pregnancy would occur. Three weeks ago she came to my office with amenorrhœa, excessive vomiting, and other symptoms indicating pregnancy. Had I made a mistake in not removing the uterus? An abortion will be likely to result and, if pregnancy should go on, it will be a case duplicating that of Dr. Longstreet narrated this evening.

DR. WOOD: I hesitate to disagree with Dr. MacEvitt. I have seen more than one successive pregnancy occur in a fibroid uterus and under these circumstances I cannot accept the doctrine he has laid down as being conclusive and to be applied under all circumstances.

DR. LONGSTREET: I would only add that in this particular case one of the pedunculated fibroids was impacted in the pelvis, at least the size of a large orange and a suspicion of old adhesions was proved true when abdomen was opened. In view of a possible pregnancy, if allowed to go on to an elective cesarean section there was a strong probability of a ruptured uterus and fatal result, whereas a hysterectomy offered a positive and

safe relief. The cervix in this case was about  $2\frac{1}{2}$  inches in length and lay entirely above upper border of symphysis, with a very small os.

#### ANGIO-NEUROTIC EDEMA.

DR. A. H. BOGART presented two patients, Mr. and Mrs. T—.

During the night of July 27, 1909, Mrs. T— complained of pain in left shoulder. Toward evening this pain had shifted down and localised in hand of same side. About twenty-four hours later Mr. T— was attacked with pain in both thighs and both became swollen and edematous. This shifted down to knees, particularly the right and also into ankles, which became swollen and edematous with pitting on pressure. The temperature ranged from 99 to 103 degrees for about a week. Patients were sick in bed twelve days. At the end of a week Dr. Gilmartin was called in consultation. Mr. T—'s trouble shifted from legs to right arm and hand and then to left. Arms became swollen to three times normal size from hand to shoulder with pitting on pressure. When seen by Dr. Bogart a week or ten days later, the arm was swollen, red, somewhat tender, and looked like an infected hand, a lymphangitis. Owing to fact that husband and wife were similarly affected, it was deemed best not to incise. Condition continued very painful for five weeks requiring opiates for relief of pain. Condition was first treated for rheumatism with salicylates, colchicum and other rheumatics without relief. Finally a plaster cast was followed by permanent improvement. Mr. T— has a decided atrophy, Mrs. T— atrophy to a less degree.

#### A CASE OF HIRSCHSPRUNG'S DISEASE.

DR. MOORE presented the case for Dr. Bogart.

Case admitted to Kings County Hospital on the children's service from Far Rockaway, where a diagnosis of enlarged liver had been made.



The only symptoms were distension of the abdomen and constipation, no subjective symptoms being present. Treatment consisted in large doses of castor oil and enemata. On October 17th, patient was transferred from children's service to surgical service. During a period of ten days there was no natural bowel movement and no flatus was passed. No nausea or vomiting was present and patient never complained of pain while in hospital.

On October 17, 1909, abdomen measured 23 inches in circumference at point of greatest enlargement, which is between umbilicus and tip of xiphoid appendix. When no fecal movements occurred, enlargement of abdomen amounted to  $3\frac{1}{2}$  inches. Abdominal circumference then amounted near xiphoid to  $26\frac{1}{2}$  inches.

Patient affected twice by car sickness in a ride of half an hour and complained of dyspnoea on a walk of three blocks.

Physical examination November 4, 1909. Patient 9 years old; abdomen remarkably distended; abdominal circumference  $25\frac{5}{8}$  inches; chest circumference  $24\frac{3}{8}$  inches; bladder distended and can be felt just below umbilicus; patient has continual dribbling of urine which is unusual in these cases; sternum protrudes at about 45 degrees; heart dullness in third interspace and impulse felt in third interspace  $1\frac{1}{8}$  inches from mid-sternal line; dullness above begins in third interspace; patient's general appearance might suggest that he is below the normal mentally, but he is as sharp as a trap. The stools have been only normal average result from the enemata, nothing abnormally foul or suggesting undue decomposition.

Percussion of the abdomen sounds like a drum in upper part. Below the umbilicus bladder extends. Contents of intestine in these cases has usually been fluid feces, but there has been no shifting demonstrated. There is a progressive abdominal enlargement with constipation and the presence of peristaltic waves without any obstruc-

tion or tumor mass which can be otherwise elicited.

Hirschsprung's disease was reported in 1886. It was first described in 1825. There are two types of the progressive enlargement, dilatation and hypertrophy. The first type is the true congenital idiopathic dilatation of the colon which offers no obstruction to the passage of feces and there is no way to arrive at the etiology. There is a second pseudo-megacolon which occurs in adults and is the result of obstruction from stricture, tumors or foreign bodies. In attempting to arrive at the etiology of these cases there have been ten different theories advanced.

First, Barth in 1875 suggested that the cases were due to an elongated mesentery. Others suggested elongation of the colon, thus allowing it to form last.

Others suggested deficient enervation in the plexuses of Meier, Auerbach and Meissner.

Treves had a case in which he resected the diseased area and found a narrowing of the sigmoid flexure in the lower portion and so attributed all the cases to that origin.

Hirschsprung himself considers the disease due to a congenital developmental perversion.

Finner reported a series of cases at the recent meeting of the American Surgical Association and read an exhaustive paper and also advanced a theory that the condition is due to a hypernutrition of the vascular and lymphatic apparatus.

#### VESICO-RECTAL FISTULA.

DR. RUSSELL S. FOWLER reported the following case:

C. E., aged 17 years, male, by occupation a tinsmith, was seen by me in consultation with Dr. Streep, June 17, 1909. The patient gave a history of having suffered from a severe attack of typhoid fever from which he was several months in convalescing. This was one year before my visit. Three months ago while straining at stool the patient noticed that there was some

blood in the movement; following this, urine was passed from the rectum with each bowel movement. Urination became frequent and painful, and was accompanied by the passage of blood. A diagnosis of vesico-rectal fistula was made and it was thought that the typhoid fever might have caused ulceration of the rectum or bladder. At my request cystoscopy was performed by Dr. Burton Harris, whose report is as follows: The Nitze observation instrument shows very slight distention, perhaps not more than 100 cc., and while watching, the bladder wall can be seen to approach the prism of the instrument. Intense cystitis universalis, the entire bas fond is filled with thick ropy mucus covering both ureteral orifices and trigonum. On the left lateral wall very near the vesical neck a large white calculus can be clearly seen, the stone appearing to lie in a distinct pocket; several unsuccessful attempts were made to wash out the mucus by voluminous irrigation of sodium bicarbonate. It was impossible to locate the fistula. Most of the irrigating fluid injected through a catheter passed through the rectum, very little remaining in the bladder. Dr. Harris also examined the urine, 60 cc. of which was obtained by catheter.

Urinalysis: Color, amber, very turbid; odor, somewhat fetid; sediment, abundant, flocculent, contained small brownish lumps; reaction, alkaline; specific gravity, 1026; albumen, moderate amount; bile, a trace; sugar, none; urea, 0.018 per cc. The microscope showed an abundance of bacteria resembling bacillus coli communis, a few blood cells, a few small shreds of connective tissue, large numbers of bladder epithelia many of which were partly disintegrated, a few small particles of cellulose, abundant fat globules and very abundant mucus and pus corpuscles.

Proctoscopy failed to disclose the fistulous opening into the rectum. Upon considering all the facts of the case I came to the conclusion that before proceeding to a formidable

operation upon the fistulous tract itself it would be wise to do perineal section, remove the stones and drain the bladder for a long time with the hope that the rest which drainage would give the bladder would allow the fistulous tract to heal.

On July 1, 1909, median perineal lithotomy was performed; two stones were removed. These stones rested on the bladder wall near the neck; the lower and smaller one was easily removed with the finger; the upper and larger one which seemed to rest in a diverticulum of the bladder was too large for removal intact through the perineal wound; it was therefore crushed with a Pean clamp into several fragments and these were removed with a sponge holder. The bladder was irrigated with Thiersch's solution and drained by means of a No. 40 French soft rubber perineal tube. The larger stone was nearly spherical in shape and measured about three cm. The smaller one was ovoid, having a hollow in its upper aspect against which the larger one evidently rested. Both are phosphatic and have large nuclei of friable brownish substance.

Careful search of the bladder failed to show the fistulous tract. The drainage tube was kept in place for two months, except when removed to be cleaned. For the first ten days following the operation there was some escape of urine through the rectum, but following that time none. The tube drained well and when permanently removed after two months the perineal wound rapidly closed. The patient now passes his urine naturally and is able to retain it for three or four hours at a time. He does not have to get up at night. At the last examination the urine was clear and the patient expressed himself as being normal. Urinalysis, however, showed a few particles of cellulose, showing that there was still some communication between the bladder and rectum. As there are no symptoms no further procedure has been advised at present.



## APOPLEXY OF THE KIDNEY.

DR. RUSSELL S. FOWLER presented the following case history:

T. G., female, aged 52, was referred to me September 19, 1909, by Dr. Licht with the following history: Ten days before her admission she had noticed a slight dull pain in the back which four days later became more severe; she then noticed considerable blood in the urine and several clots. Urination was accompanied by sharp cutting pain in the left lumbar region radiating to the front of the abdomen and downward to the pelvis. Urination occurred three or four times daily and the patient was not obliged to get up at night. The cutting pain in the back was worse at night. There was a chill followed by fever. Three days before admission there had been three attacks of vomiting. On the morning of admission the pain became localized to the left lumbar region and there was considerable tenderness in that region.

The patient gave a history of having had a severe malaria twenty-five years before, lasting for two and one-half years; she had had three attacks of lumbar pain similar to the present one, the first twenty years ago, the second five years later and the third six years before the present attack. The third attack was the most severe. The history was in other respects negative.

Examination showed a tender immovable tumor the size of a cocoanut occupying the site of the left kidney. The mass was plainly visible as well as palpable. Temperature, 98; pulse, 104; respiration, 24. Urinalysis: specific gravity, 1025; color, red; reaction, acid; albumen, a trace; urea, 19 gr. to the ounce; microscopical, an abundance of red and white blood cells, some hyalin casts; quantity, 45 ounces. Blood examination; hemoglobin, 95 per cent.; leucocytes, 7,800; differential, 75 per cent. X-ray examination negative, no stone discoverable. Permission could not be obtained for a cystoscopic examination and the patient demanded immediate relief. Although no history could be obtained of

the sudden passage of a large quantity of urine following relief of the pain, and although the X-ray did not show a stone it was thought probable that the case was one of hydronephrosis associated with calculus. Operation, however, disclosed a very different condition. A six-inch incision in the lumbar region was carried down through the transversalis fascia and the kidney fat exposed. Immediately on opening the transversalis fascia there was a gush of a small quantity of fluid blood. This was sponged away and a number of clots about a double handful, removed from the kidney fat. The kidney fat was separated down to the kidney and the kidney brought up into the incision. There was considerable free bleeding. With the first and second fingers of the left hand pressing the pedicle of the kidney the organ was examined. It was found that there was a rent in the capsule and in this rent a large clot shaped to the kidney. On account of the hemorrhage it was deemed wise to do a nephrectomy. The tissues surrounding the renal artery and vein were somewhat edematous, the pedicle was ligated en masse with braided catgut. The kidney was removed, the wound cleansed from fluid blood and clots, and as there was some oozing from torn adhesions in the neighborhood of the diaphragm the entire wound was packed tightly, the end of the packing being led out of the lower angle of the wound. The wound was then closed except for its lower angle with layer sutures. The packing was removed on the fourth day and a small strip reinserted, the wound healing per primam except at the point of the emergence of the packing. This granulated rapidly. The patient was out of bed on the twelfth day, and went home on the eighteenth day. The one untoward symptom noted was some bladder irritation from concentration of the urine; this was remedied by the ingestion of large quantities of fluids and alkalines.

The kidney presents the following appearance: A tear in the capsule

through which there had escaped a considerable amount of blood; a partially organized clot beneath the capsule which had dissected the capsule on the convexity of the kidney loose from the cortex; this shows that the hemorrhage had extended through the rupture of the capsule; a small rupture at the lower pole of the cortex through which the blood had escaped from the kidney structure; a cavity the size of an egg in the cortex filled with fresh blood clot; a few small clots in the pelvis of the kidney and in the upper part of the ureter. This, as well as the presence of blood in the urine, showed that there had been some connection between the hemorrhage in the cortex and the pelvis. Such an opening, however, cannot be made out in the specimen.

A search of the literature fails to disclose any case of a similar nature previously reported.

#### RECURRENCE OF EXOPHTHALMIC GOITER AFTER OPERATION.

DR. THOS. B. SPENCE reported the following case:

This patient, a married woman of 40 years, came under observation three years ago. Her family history was negative. She bore twins five years before, when she had much edema of the limbs, and she bore a dead child nine months before. She gave a history of having suffered two months with a cough, shortness of breath, nervousness, a pulsation in the neck and her friends remarked a protrusion of the eyeballs. Her physician called attention to a swelling in her neck. At the time of her admission to the hospital she was suffering from diarrhoea and had lost nearly eighty pounds in weight. She was coughing up much mucus, her face was flushed, her eyes bulging and her respiration labored. Her temperature ranged from 99 to 104 degrees, pulse 100 to 150, and respiration 30 to 35. Breathing sounds were exaggerated, there were many mucus rales and there was hyperresonance over the entire chest. A thrill could be felt over the

precordium, there was a systolic murmur at the base and the heart extended seven inches to the left. A large goiter was present.

The patient was cared for in the medical service for two weeks, Rogers-Beebe serum being administered during the time. As she rapidly grew worse an operation was decided upon. At this time she could not sit up in bed. The line of incision was cocaineized and the thyroid was removed with the exception of small portions of each lobe and the isthmus.

She stood the operation well and almost immediately began to improve. In one week the heart diminished in size nearly one-half and the nervousness had greatly lessened. In two weeks the exophthalmos had almost disappeared. In four weeks she was discharged from the hospital practically well.

Six months ago the patient again reported in about the same condition as at the time of the first attack, though she had been well until within three or four months. The cough, nervousness, palpitation, dyspnoea, protrusion of eyes, tremor and diarrhoea were all present as before. There was a goiter of moderate size on the left side. Temperature, 102; pulse, 140; respiration, 50.

The growth was removed under ether anesthesia except for a small portion. Improvement was rapid and in a week's time the patient was up. She has steadily gained since then and is practically well again.

#### EPITHELIOMA OF THE RECTO-VAGINAL SEPTUM.

DR. THOS. B. SPENCE reported the following case:

This patient is a widow of 60 years, giving a history of constipation and pain at stool and increasing weakness.

Examination revealed a round, hard tumor, the size of a small hen's egg, situated in the recto-vaginal septum. On the vaginal side there was an ulceration of the mucosa, none on the rectal side.



Removal of the tumor was accomplished by cutting through the perineum and sphincter and excising portions of the rectum and vagina including the growth. The walls of the rectum and vagina were sutured separately and the sphincter and perineum were repaired. The microscope confirmed the diagnosis of epithelioma.

The sutures did not hold completely and a recto-vaginal fistula allowed most of the feces to discharge through the vagina for a time: but the opening soon began to close rapidly and in a few weeks the leakage stopped. At the end of two years the patient has remained well.

#### GASTRECTOMY.

DR. WILLIAM FRANCIS CAMPBELL reported the following case:

Specimen shown was portion of the stomach which was removed. Patient shown on whom gastrectomy was performed two months ago. Patient 32 years old, presented stomach symptoms and had a palpable tumor in epigastrium. Whatever food was eaten was vomited in the course of an hour after digesting it. Diagnosis was carcinoma on anterior wall of stomach. Purpose of operation was to do a gastro-enterostomy. However a tumor was found well within the lymphatic area and it seemed a typical case for removal. Stomach was excised well up to pyloric end, and along the Mikulicz-Hartmann line both ends were closed and an anastomosis was made between the œsophageal end of the stomach and the highest point of the jejunum. Since operation patient has gained eighteen pounds. Externally only a crease can be seen as the result of operation.

*Discussion by Dr. Delatour.*—Having seen a number of cases of attack on the gasserian-ganglion and the difficulties connected with it, I never had a great longing to undertake the operation, but was compelled on one or two occasions to attack the nerves and on these instead of removing the ganglion, followed the plan of divid-

ing the nerves. I did not place the rubber tissue as Abbe has advocated, but plugged the canal with dental amalgam. Even that is a serious and dangerous operation and I looked forward to the injection method with a good deal of interest. I have used it now and I am satisfied that there is a great deal in it. It is not difficult of execution as one might think, and, as Dr. Campbell has said, it is not absolutely necessary apparently to pierce the nerve with our needle. You can come sufficiently close to the nerve by following the directions as given by Dr. Campbell which are practically the same as those given by the other authors. Dr. Campbell did not speak of the deep injection into the first division. He simply spoke, I think, of the superficial injection. It is just about as easy, or easier, to inject at the sphenoidal fissure as it is at either of the foramina. The needle is introduced just at the outer angle of the eye and followed along the outer edge of the orbit for three and one-half centimeters and the injection is made there. I have done that on three occasions and in one instance had quite a good deal of edema of the eyelids which promptly subsided. In that case there was a great deal of pain over the supraorbital region extending well up to the forehead and in this case two injections had to be made. I think we can look forward to very good results to come from this injection method. It certainly is a great advance over the dangerous operation of opening the skull.

*Discussion by Dr. Gordon.*—I would like to know what the history shows as to permanency of cure. We have reports of cases of a few months only.

*Discussion by Dr. Delatour.*—I would say the first case I had is now, I think, just a little under a year. It was a case of about as intense trifacial neuralgia as I ever saw and the first injection caused very little relief. Injections were repeated, and, as far as I know, there has been no relapse

and I imagine if there had been, I would have heard.

*Discussion by Dr. Campbell.*—In answering Dr. Gordon's question, Schleicher's first article on injection treatment, reports cases which have gone for three years without recurring. However, this does not seem to be a matter of such great moment since the method is such a simple one that the cases can be re-injected at any time. The procedure is not especially difficult or painful and if pain is alleviated for months, something is gained, and the injection can be repeated. Injection of foramen ovale is not the usual one employed, but is a method we have worked out ourselves.

#### SECONDARY HEMORRHAGE AFTER CHOLECYSTOTOMY.

DR. J. B. BOGART reported a recent case of cholecystotomy in which the patient, a woman aged 55 years, had had several attacks of gall-stone colic, without jaundice, terminating in spontaneous recovery. Her latest attack was at first similar to the others, but after the pain and other symptoms had subsided, she became jaundiced and the nausea recurred. For four weeks she partook of very little food almost none at all; the jaundice increased and the stools were clay-colored; she was confined to her bed, was very weak and jaundiced to an extreme degree; her pulse was not rapid—between 80 and 90—her temperature was normal, her condition being not unfavorable excepting her weakness and severe jaundice.

Bearing in mind the possibility of hemorrhage after operation where the jaundice was so pronounced, he gave her for the twenty-four hours before operation 20 grains of chloride of calcium every four hours. When the gall-bladder was opened it was found to contain several stones but no bile, and there was, as anticipated, a large stone in the common duct with the breaking up and partial re-

moval of this stone which produced the obstruction; there was comparatively little hemorrhage. The operation was not prolonged and the patient seemed to stand it very well; the next day, however, the pulse rose to 120 and continued to increase in frequency, becoming intermittent. The patient did not suffer from air hunger, but complained of extreme weakness; although nauseated, she did not vomit frequently. She took no food.

The rising pulse and increasing weakness on the day following operation, together with the fact that the dressings were saturated with blood, led the speaker to suspect concealed hemorrhage. The calcium chloride had been discontinued after operation, but with the appearance of hemorrhage it was resumed per rectum together with five minims of adrenalin solution, 1 to 1,000 every four hours by hypodermic injection. The result of this treatment seemed to have been almost immediate. The pulse, instead of increasing, after a short time began to diminish in frequency, and the next day while there was some blood on the dressings, they were not saturated, and there were indications that the hemorrhage had been arrested. There was no further serious hemorrhage; in a few days the pulse came down to 90, and she has been doing well ever since.

The operation took place September 24th; for the first forty-eight hours there was no drainage of bile from the gall-bladder, then it began to come away, and when the bowels moved there were evidences of bile in the stools. Examination of the blood on the second day following operation showed there had been a loss of nearly 1,000,000 red blood cells since before the operation, and the hemoglobin had fallen from 95 per cent. to 85 per cent.; the blood count before operation showed nearly 5,000,000 red cells, which was reduced to about 4,000,000 the second day after operation.



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## A CONTRIBUTION TO THE SURGERY OF BLOOD TRANSFUSION.

By J. E. JENNINGS, M.D.

Instructor in Surgery, Long Island College Hospital; Assistant Surgeon, Brooklyn Hospital.

THE profession is indebted to Crile, of Cleveland, for reviving the practice of blood transfusion, for suggesting several new applications, for in part at least defining its use, and for the painstaking elaboration of a detailed technique.

The indications for transfusion are as yet unsettled and need not be discussed here. It appears at present that its usefulness will be limited, but perhaps in certain cases definite. But much more work remains to be done before any conclusions as to its value can be reached.

The last words of Crile's own book on "Hemorrhage and Transfusion" deserves quotation: "Judiciously employed," he says, "transfusion will surely prove a valuable, often a life-saving resource. Injudiciously employed it will surely become discredited."

The difficulty of performance of the method described by Crile has very materially limited its application. As you will recollect he bares and dissects out about  $2\frac{1}{2}$  c.m. of the radial artery of the donor, and the same length of one of the superficial arm veins of the recipient. The vein is then drawn through the little canula made for the purpose, caught back over its end and tied in place. The radial artery of the donor is then pulled over the canula and vein and also tied down. This arrangement

secures contact of the intima of the artery with that of the vein, which was believed to be essential to prevent the formation of thrombi. This method has certain disadvantages besides its method of performance. In some of the cases the passage through which the blood must pass is so narrow that the stream is stopped, or so slow that clotting occurs. While it is necessary that intima should lie next to intima when a permanent vessel suture is done, this is unnecessary for the short time used in a transfusion as Hartwell has shown. He thrusts the cut end of the radial into the lumen of the vein without any intervening mechanism. This sounds easy but in one case in which I tried it, it appeared to me nearly as difficult of performance as the method of Crile.

Many special instruments have been reported to render easier and quicker the placing of intima against intima, which it seems is not necessary to the success of the operation.

During the last year Brewer published several cases in which, after animal experiments had proved the method safe, he had used a direct paraffin-coated glass canula through which the blood is allowed to flow. Crile himself is reported in the Transactions of the American Surgical Association as saying that he wished to recommend Dr. Brewer's method



FIG. 1.—Showing position of donor and patient ready to connect the veins.



which seemed simpler than his own. The use of the radial artery, however, often necessitates the handling of a very small stream of blood with no control and but little supervision of the rate of flow and the annoying tendency to clot formation during the performance.

It appeared as if some of these disadvantages might be obviated by using a larger stream of blood, withdrawing this from a vein as was the ancient method. But our forefathers required

having the donor in a half upright posture, by exerting constriction in the upper third of the thigh and by opening the vein near the ankle. Fig. 1 shows the subject elevated 45 degrees from the horizontal. Both saphenous veins are opened above the ankle. The right leg shows a direct canula inserted at the proximal end and represents what occurs when the valves of the saphenous are incompetent as in cases of varicose veins. I am convinced that this incompetence of



FIG. 2.—Operating table adjusted for use.

the use of a pump of one sort or another in conveying the blood from the donor to the recipient.

The method that I submit is new and differs from any of the methods mentioned above in the following points:

Instead of an artery of the donor and vein of the recipient being coupled, vein is attached to vein by means of a good sized glass canula coated with paraffine, and I have been able by means of gravity to pour the blood from the vessels of one subject into those of the other.

It is feasible to get enough pressure in the long saphenous vein to carry the blood over in a good stream by

the saphenous occurs in many people who show no signs of varicosities of the veins of the leg and can be recognized in them by careful examination, but that is a matter which forbids consideration here. It is common at all events, probably in the neighborhood of 20 to 30 per cent. of adults.

The left leg shows the saphenous vein with a U canula inserted in the distal end of the vein and with a tourniquet obstructing the venous return above. It represents the flow under such circumstances. Note that the rate of flow can be controlled by three factors:

(1) The degree of elevation of the

donor; (2) the degree of constriction of the thigh; (3) the calibre of the canula; and that the rate of flow should be more constant than in arterial transfusion.

The technique is as follows:

The subjects are placed upon a table 10 to 12 feet long so arranged that one end can be depressed to the floor.

recipient and the inner malleolus of the right foot of the donor or the left feet, as convenience may suggest, are then opposed; and under cocaine, 1-5 of 1 per cent. in normal saline, the long saphenous veins of both subjects are cut down upon and freed for an inch or so. The long saphenous vein may be readily felt under the skin anterior to the inner malleolus, it may



FIG. 3.—Illustrating Case II. Showing position of patient and donor in a private house.

Fig. 2 is a representation of an operating table upon which have been strapped two stretcher boards so as to improvise this apparatus.

The subjects then are placed on this table in the dorsal position each with his feet toward the middle of the table and so placed that the malleoli are opposite. A strip of strong webbing is hung over the end occupied by the donor and his free foot engaged in its loop so that later on his position may be shifted up or down as the case may demand. The inner malleolus of the right foot of the

be rolled under the finger and is, I think, constant in this position.

The end of the table occupied by the recipient is now lowered raising the donor high in the air so that he lies at about an angle of 45 degrees to the horizontal. The vein of the donor is opened, the proximal end tested, and if normal, that is, if there is no sharp reflux as occurs when the valves are incompetent, is clamped and tied. The U canula is then passed down the vein toward the foot; the canula should pass well into the vein



for even a slight kink is enough to block the stream.

The rate of flow is now measured, the number of seconds that it takes for a measured drachm to flow is now noted; the vein of the recipient is opened, the coupling is made and the blood allowed to flow as long as desired. By placing a tourniquet lightly about the thigh and tightening it as in

tent saphenous vein it will be found that there is a free reflux from the proximal end of the vein and a direct canula may be used instead of the U form, taking the blood from the proximal instead of from the distal side.

I have used this method in four cases which I will briefly summarize here:

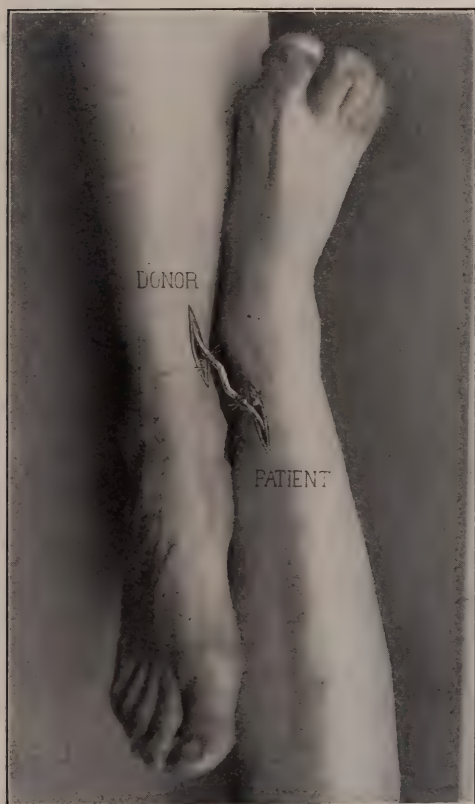


FIG. 4.—Showing method used when donor has an incompetent saphenous vein.

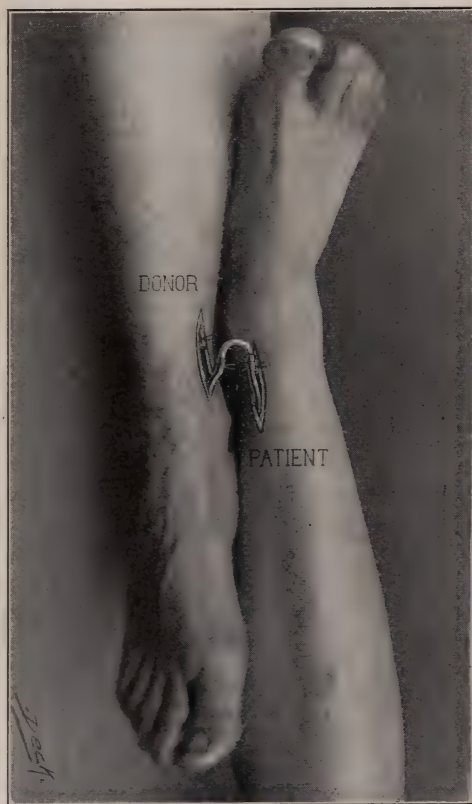


FIG 5.—Taking the blood from the distal sides—a procedure applicable to any case.

Bier's method of obstructive hyperæmia, so as to interfere with the venous return but not with the arterial inflow; the venous pressure and the rate of flow of blood from the donor are increased.

If the donor is made to take active exercise for a few minutes before the transfusion is done the rate of flow will be materially increased.

In case the donor has an incompe-

CASE I. A man 43 years old, admitted to the Brooklyn Hospital November 15, 1909, suffering from an extensive carcinoma of the buccal cavity with glandular involvement and a prolonged secondary septic process of the face and neck. On November 20, 1909, an extensive abscess of the neck and face was incised and drained. His emaciation and anemia continued and it was impossible to improve his nutrition on account of the foul fungating mass in oral cavity, nor could his teeth be separated enough to resect the growth through his mouth. It seemed desirable to slit his

cheek and cauterize the epithelioma slowly at a dull red heat along the lines of a Byrne operation for epithelioma of the cervix uteri. I felt that this would be safer if a transfusion were done first. This was done December 31, 1909. His son of 19 was the donor. He had a partially incompetent saphenous vein and the blood was in his case withdrawn from the proximal end. The blood flowed at the rate of one drachm to the minute. He was transfused for thirty-four minutes, at the end of which time his hemoglobin had risen 10 per cent. from 60 to 70 per cent. The donor's hemoglobin did not materially change. At the end of this time his cheek was slit and the growth slowly cauterized and the cut in the face sutured.



FIG. 6.—The right saphenous vein is incompetent and the blood is seen flowing from the proximal side.

The left saphenous vein is opened distally. The streams of blood show how considerable a pressure can be obtained in this way.

This healed by primary union and his general condition improved. He left the hospital January 11th, to go to work.

CASE II. The second case was done in a house on a young woman who was pulseless and waxy white from repeated hemorrhages from an ulcer of the stomach.

The method illustrated in Fig. 3 was used. A seven-foot door was taken down and used at an angle of 45 degrees over the foot of the bed. The recipient's lower extremities were elevated on the door. The donor, a young man of 23, the fiance of the recipient, was held by a stirrup as shown in the cut. The donor had a com-

petent saphenous vein and the blood was taken from the distal end of the cut saphenous through a short straight canula. The U form I am convinced is better.

The blood flowed at the rate of eight seconds to the drachm. The transfusion continued about fourteen minutes. The recipient's expression improved markedly. Her pulse which could not be felt at the wrist when the transfusion began returned at 140 and slowed to 120. Her ears which were white and waxy became pink. The hemoglobinometer showed no change in her hemoglobin which was 50 per cent. The donor's hemoglobin showed a 10 per cent. reduction and he was becoming a little pale and weak and the transfusion was stopped and about eight ounces of saline given in the vein.

A laparotomy was then immediately done, all the preparations having been made beforehand.

An ulcer was found in the anterior wall of the stomach near the pylorus; a circum-suture was done and the patient returned to bed. I am satisfied that without the transfusion she could not have stood even this brief operation.

Under saline infusion in the rectum and hypodermoclysis, she did well until the third day and we had begun to congratulate ourselves when she suddenly became delirious, developed a few rales at the base of the right lung, ran a rapidly ascending temperature and died; I think she died of a pneumonia.

CASE III. Ruth M., colored, aged 20. A case of sepsis following Cesarean section, referred by Dr. Hussey.

Culture showed streptococcus pyogenes and staphylococcus pyogenes alloeus.

On Feb. 12, 1910, the patient was in very bad general condition; temp. 102 deg., pulse 140; blood count 23,400 white cells, 88 per cent. polynuclear; red cells, 3,084,000; hemoglobin 41 per cent.; a venous transfusion was done, the blood being taken from the distal side of the saphenous vein of the donor, who was a strong young man of 25, the patient's husband. The blood flowed, fully one drachm passing in about 10 seconds, and in 15 minutes after the transfusion was begun the hemoglobin of the recipient was found to be 61 per cent. At the end of 20 minutes the red cells of the recipient were 3,800,000 and the hemoglobin 64 per cent. The hemoglobin of the donor diminished during this time from 90 to 80 per cent. and his pulse rate having risen from 80 to 110, the transfusion was stopped.

The patient's condition improved temporarily, her pulse rate fell to 120 and she appeared improved, but the improvement was inconsiderable and she sank and died.

CASE IV. Mrs. Nellie B., aged 28, U. S., white, referred by Dr. Northridge. A case of ruptured extrauterine pregnancy, briefly



as follows: Has been married 6 years; two children, no miscarriages; last menstruation Jan. 28, 1910. The day before admission while at stool she was suddenly seized with severe abdominal pain, with faintness and nausea. Her doctor was called and watched her during the day; morphine was given, an ice bag applied, and the patient kept quiet, but her pain continued, her pulse ran up and her pallor increased. When I saw her at midnight of March 9 her pulse was 160, almost imperceptible. She had and was having an hypodermoclysis under the breast, her air hunger was noticeable. By vaginal examination fluid could be made out in the cul de sac.

She was immediately removed to the Brooklyn Hospital, and a young woman friend of hers consenting to act as donor, a venous transfusion as above outlined was done. The hemoglobin of the patient before transfusion was 51 per cent., thirty minutes later 62 per cent.; of the donor before transfusion, 89 per cent.; after, 68 per cent. 1000 c.c. of saline was also given intravenously after the blood transfusion was over.

The transfusion was accomplished in 7 minutes. The blood flowed freely at the rate of 1 drachm in 10 seconds. As soon as the blood flow was established, an abdominal section was done while the transfusion went on under the care of the House Surgeon, Dr. Hoagitt.

The abdomen was found filled with blood and an active hemorrhage was going on from the sac at the left cornu of the uterus.

At the close of the operation the pulse was 140, temperature 99 deg., respiration, 40. Twenty-four hours later her pulse was 135, temperature, 98 deg., respiration 28. For six succeeding days the patient had an afternoon temperature of 101 deg., but the pulse remained above 120. On the second day she got up a dilatation of the stomach, which was relieved by the use of the stomach tube, which removed a quantity of gas under tension, and two quarts of fluid. This had to be repeated on the third day, but after that her recovery was uneventful.

A blood count taken five days post-operative showed 45 per cent. hemoglobin. Again eighteen days postoperative, 53 per cent.

I am satisfied this case was saved by blood transfusion. Her reaction to operation, and especially her condition during the first twenty-four hours after operation, was quite different from that of similar cases of desperate hemorrhage treated by saline infusion alone.

This is a preliminary report of a method of blood transfusion which I think is easier than the arterial method.

The canulæ are large, the vessels are large, easy to find and to deal with. It is not necessary to use clips to control the flow, while the coupling is being made, as in the arterial method. It should be easier, I think, to gauge the amount of blood passed.

It may be claimed that venous is not so good as arterial blood. This may be answered theoretically, that if the patient be given blood he will soon aerate it himself, or practically that we cannot tell until we try.

Crile, in his work on *Hemorrhage and Transfusion*, says that "It is futile to attempt to calculate the amount of transfused blood from direct observation of the loss of a few c.c. in a given time from the radial artery." The rate of flow varying as the flow progresses. Perhaps this is also true of transfusion from a vein, but the flow seems rather constant and much less at the control, so to speak, of the donor's blood pressure. I am inclined to believe that venous transfusion can be measured.

The subject of transfusion presents a number of problems which are not in any way dependent on the method. I have not touched upon any of these; when more transfusions have been done they may be answered. I am in hope that this may prove a practical and prompt method and in that attitude submit it for consideration.

# INDICATIONS FOR EXPLORATORY INCISION IN GASTRIC DISEASES.\*

By ANTHONY BASSLER, M.D.

NEW YORK CITY.

SINCE the advent and development of abdominal surgery for the treatment of diseases of the digestive canal, it is plain that three main facts now stand prominently before us. Firstly, that surgery can quite safely cure many of the disorders which medical means cannot; secondly, that by far the greatest number of our general practitioners and so-called stomach specialists are too pro-medical in their leanings; and thirdly, that up to the present time, neither the surgeon nor the type of specialists mentioned have approached the solution of the disparities so as to answer for most of the patients as they are seen in clinical work. Because of these, I have thought that a paper which may help to bridge over the gap between the complaining surgeon on the one hand and the reluctant type of partial internist on the other, may serve to the better understanding of the subject.

In the construction of this paper I appreciate that I must be more or less general because I cannot encompass the entire subject or describe the ever changing cases seen, and thus there will be omissions that answer for certain cases. The remarks I shall make are gleaned from my own experiences and observations from the cases I have seen, and I will use no references from other workers to guide me. I will first consider the status of the subject from three standpoints; the general practitioner, the surgeon, and finally the gastroenterologist, or better still, the internist.

*Consideration of the Subject from the Standpoint of the Average General Practitioner.*—During the last

three years that I was in general practice I kept records of the cases that applied to me for treatment of illnesses of all kinds and these I classified under headings of separate divisions. In toto they comprised about every form of case that is ordinarily seen by practitioners of general medicine. During that time and since then, I have had the good fortune to be in intimate contact with quite a number of those who are considered to be men with large general practices. My own former day experience was such that I feel that to-day I am cognizant and understanding of the general practitioner's life, the character of his daily work, and the forces which influence him in his efforts in behalf of his people and his own success, and I believe that the cases I then saw about averaged the work that is expected of most of the general practitioners to-day, and also those who are more or less legitimately and successfully engaged in the work of one of the specialties along with the other cases that come to him for treatment. At the end of the third year, I noted that fully one-third of the adult cases that had come for treatment had done so for some condition referable to the digestive tract, and I was not particularly interested in that branch of work at the time. During this period my diagnoses of cases seen were simple, comprising such as nervous dyspepsia, acid stomach, catarrh of the stomach, fermentative indigestion, chronic constipation, acute ulcer, prolapse, and other rather indefinite and unqualified terms. Most all of these recovered or made improvement on an initial cleansing of the intestines with a purge followed by tablespoonful doses of mixture of rhubarb and

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soda (sometimes with tincture of nux vomica or one of the bismuth salts or fluid extract of cascara sagrada added), some simple dietetic rules that seemed to be in order in the case, nerve sedative or tonic mixtures, belts for men and straight front corsets for women who had prolapse, and the general hygienic measures. I arose each morning with a busy day before me. In a short time my morning office hours began and after that I was hurrying to get through with the office patients, get my luncheon and still have time enough left of the afternoon to make certain outside calls before my office hours began again in the evening. Often a confinement case came in in the meantime, and perhaps at about the same moment a surgeon who was operating on one of my patients at a hospital at some remote distance from me at a precise hour was, with the patient, anxious to have me present. With this a child with a laryngeal diphtheria was coughing up a tube which had to go back immediately, and in the fall one or more typhoid, or in the winter one or more pneumonia cases, requiring more than one visit a day, crowded my daily time so as to keep me constantly hurried and so forth. The diseases of the digestive tract, such as the 25 per cent. of acute gastric ulcers that gave marked clinical symptoms, the late gastric cancers with a mass in the epigastrium, acute intestinal obstructions, acute appendicitis, etc., were usually diagnosed. But with my days busy with divers cases of illness, was it expected of me to take a test meal and make a thorough examination of every case of digestive disorder that came to me, and from my limited time and knowledge of the subject then could I have properly performed and interpreted these analyses if I did? I doubt it. Therefore, what happened to the ulcer cases of an obscure form, the early cancers, and other obscure gastrointestinal conditions? Simply, they were not diagnosed. Some of these fell into the hands of other men, and even supposedly skilled stomach spe-

cialists, and were not diagnosed either—at least they were not operated upon as they should have been. Other cases again sought succor from the hands of surgeons and those less busy, and were diagnosed sooner or later, and no doubt some of these men wondered why I should have been such a busy practitioner when I was doing what looked from a single case to be such careless work. Let us not forget that by far the largest number of the cases I treated got well or made substantial improvement just the same as is true with most of the general practitioners to-day, and like others I even had the occasional pleasure of relieving some cases which both the surgeons and so-called "stomach specialists" had under treatment before me, without satisfaction to the patient; and in these not a few were the instances in which operation had been performed, an appendix removed, a gall bladder drained, a gastroenterostomy done, or the abdomen opened and closed again and nothing said, all of which cases were still to be cured.

*Consideration of the Subject from the Internist's Standpoint.*—The skilled diagnostician in regard to the number of cases in which medical or surgical means are indicated occupies a position between the general practitioner on the one hand and the surgeon on the other. He sees more surgical cases than the first and more medical cases than the second. This is mostly due to the following facts almost daily observed. The general practitioner does not refer cases for detailed work in diagnosis until they have thoroughly exhausted all ordinary methods of treatment, and often these cases in the specialists' hands prove to have been surgical cases when they had first been seen by the general practitioner, in whose hands, a too long continued unsuccessful treatment had unwisely been carried on, or the cases that come to the specialists unreferred by their physician have been long standing and neglected (these statements are particularly true of the cancer and ulcer cases); the un-

fortunate fact that the average general practitioner when he refers a case to the internist expects an accurate diagnosis to be made quickly, and quite a number of otherwise brilliant medical men wonder why this should take so long to do; because many of even our best known specialists are too medical in their tendencies, and possibly because (like general practitioners) they are too busy to go into the minute of examination in each case and thus permit some of them to be temporized with too long; because the largest proportion of patients seem to fear the advice of operation, and a large number of those in whom exploratory incision for investigation is desirable cannot understand why an incision in the abdomen should be made to clear up doubts when the man who suggests it is one of the most prominent of specialists; and lastly, because too often when the advice is given for the performance of exploratory incision the patient goes elsewhere for treatment and thus is liable to keep along the lines of medical men who are reluctant to advise operation (this latter fact, of course, should not influence any internist in his work, and only is mentioned as one of the unfortunate facts that we have to deal with). As case after case of digestive disorder comes to us, many of which had been operated upon for appendicitis, gall stones, etc., and still are complaining from some neurotic, catarrhal, or prolapsed condition of the stomach, or putrefactive condition in the gut or other medical conditions, very often are seen cases which get well when better medical work than either the general practitioner and the surgeon had done, is carried out, and these have their undoubted effects upon some of the specialists in the way of influencing him against the too hurried institution of surgical procedure even for diagnostic means (particularly is this true when by analysis of the case some tangible diagnosis is possible of being made).

It is difficult to put into words set rules to guide us in all cases. Considered from all standpoints, the vary-

ing clinical pictures seen and studied makes it almost an impossible thing to do, but here are a few rules that have served me well in distinguishing some of the patients who have come to me.

A patient who gives a suggested or definite past history of ulcer, who, after the acute symptoms have subsided has a continuation of digestive distress should be most carefully and exhaustively examined and if nothing definite is found should again be placed on the rest and food treatment, and if after this, the patient is not substantially improved the case is operative. With cases giving such a history of ulcer, the more or less constant presence of blood in the test meals and feces, a stomach continuously intolerant to foods, evidence of delayed exit of foods from the stomach, or a stomach noted by X-ray to be globular (dilated) or showing irregularity in its contour, is operative from the beginning, it making no difference whether gastric hyperacidity, hypersecretion, subacidity or anacidity be found. Also, a patient in whose empty stomach are found small blood clots, many leucocytes, a high bacterial content, and shreds of connective tissue, and the test meal shows a high acidity and from which, when the free HCL had been neutralized, more than a 2 per cent. gas result on standing twenty-four hours in an incubator is seen, means a greater bacterial content than a normal stomach should have and high bacterial content fermenting the saccharides in the face of abundant stomach secretions in the organ most probably means latent ulceration and therefore is operative. We have no clinical means of recognizing the early stages of a carcinomatous degeneration of an ulcer, and the fact that benign pyloric stenosis as well as simple chronic ulcer is often subject to cure by surgical procedure. When a pyloric stenosis exists operation is a perfectly justifiable procedure in every case that gives an early history of ulcer. But it is in those cases in which no ulcer history is obtained or suspected and those in which the dif-



ferential diagnosis lies between acidity, gastric neurosis and carcinoma that great care must be taken. In these, in my belief, we should hold off advising operation when no pyloric stenosis exists, and when it does or comes on, advise it in every instance.

Whatever the diagnosis, or if none definite can be made, and providing it is not splachnaptosis, a patient that does not improve on the most logical medical treatments for their condition, and particularly if the patient displays rapidly progressive loss of weight, strength, and asthenic blood change, that case is operative. If the diagnosis of hyperacidity or hypersecretion or atony had been made and the case does not improve on a reasonable length of treatment with proper medical treatment it probably is operative. In a general way, it should always be remembered that the longer the history of digestive distress, the greater is the proportion of operative cases.

If a mass is palpable in the upper abdomen, and it is not a loose kidney or liver, it is operative. But a typical stagnant stomach giving an achylic return with lactic acid and many Boas-Oppler bacilli, the combination must be clinically looked upon as a questionable operative case of carcinoma of the stomach. In such an instance, the blood condition, rather than the general condition of the patient, should guide us. If the blood reduction in hemoglobin and erythrocytes be great, operation is liable to be fatal, and it is fairer to allow that patient to die in the few days that are left to him rather than add mutilation to his raised hopes from operation even if a gastroenterostomy be successfully performed.

A case of gastric distress, whatever the stomach diagnosis, which constantly has present a point tenderness located definitely in the biliary triangle (which runs from the top of the ninth left costal cartilage to the umbilicus) or appendix region, is medical for a month, and operative after that if substantial improvement has not been made. Likewise, if a gall stone case had recurrent attacks of biliary

colic with jaundice, or if an acute attack of appendicitis with fever had been present the cases are operative at once.

If the gastric distress comes on with or shortly following a deterioration in the general health the case is medical, and operative at once should a perforated gastric or duodenal ulcer be diagnosed or strongly suggested. Many surgeons recommend that in all cases that are suggestive of cancer of the stomach in which a diagnosis cannot be absolutely made, the patient should be subjected to operation. With Kuttner, I am opposed to such a general rule. I recognize that there exist certain cases in which operation is advisable, but always about us are seen cases of gastritis anacida, gastric atrophy and certain neuroses in which no HCL is present, and certain of these and others have retardation of food from primary atony, and again, many that have secondary gastric conditions from functional and diseased conditions in other organs. In every one of these, operation would be criminal. Only the other day a case I had seen of late atrophic gastritis with nephritis was operated upon by one of our best surgeons for a suspected gastric carcinoma, with the result that nothing was found and after which the patient died—was this right when the true diagnosis was so easy to be made?

A nephroptosis with a freely movable kidney and in which Dietl's crises or recurrent jaundice exist, is operative if the attacks do not cease after a month of treatment with support and constructive medical measures. When, even under apparently successful medical conditions, the seizures are followed with blood in the urine it is an operative case.

A person in whom the bowels have always been regular and in whom constipation is rapidly becoming pronounced and leading to obstipation and the general body is failing, and there are not to be found definite medical reasons for this progressive constipation, is operative.

A blow on the stomach or a fall

from a height shortly followed by the vomiting or the passing of blood per rectum, or any abdominal wound that penetrates or perforates the abdominal wall are operative cases at the earliest moment.

A case which presents a fixed mass anywhere in the abdomen is operative providing large doses of iodide of potassium does not cause its disappearance. Operation is indicated in post-operative abdominal conditions in which the vomiting or stomach contents obtained by tube displays successively the constant presence of bile, pancreatic secretions and fecal substance; and in these cases do not wait until the symptoms of collapse come on.

An X-ray plate that shows a stricture of the colon, or when the feces constantly displays the presence of blood and pus, and particularly if on digital and proctoscopic examination of the rectum nothing is noted to account for it, the case is operative. If a growth is noted in the rectum it is operative, but if the discharges are from a tubercular, syphilitic or amoebic ulceration of the colon it is not.

In closing I wish to make a plea to general practitioners to seek the diagnostic help of the skilled internist earlier and in more of the patients that do not improve under treatment in his hands, and also to many of the internists to seek the help of the surgeon oftener than is now customary.

The average surgeon is most respectful and does not look lightly upon diagnostic medical work that is well done, but most of that which comes to the surgeon is not thoroughly enough analyzed or deeply enough considered from the medical standpoint. More cases should go before the surgeon for exploratory incision to see why certain conditions are so, rather than for him to explore to see if something can possibly be found. Of course, there will always be some cases of the latter group, but if we all do better medical work, and work together more conjunctively than we now do, these will not be as numerous as they are to-day. A most unfortunate fact lies in that enough cases are not exhaustively analyzed from the medical side, and in that many of the fine points of clinical procedure, readily at hand, are not utilized in the examinations. My experience and observations with the majority of surgeons I have come in contact with has been that, in a general way. Surgeons have not the time, inclination, technical skill, deductive clinical ability, or temperament to diagnose these affections in the ways given to internists. The solution of this difficult subject will always remain, where it should be, in the diagnostician's hands, and in my opinion, to minimize the dangers of mistakes, matters of surgical diagnosis should follow and not precede him.

## CHRONIC CHOLECYSTITIS, ITS TREATMENT AND CURE.\*

By J. RICHARD TAYLOR, M.D.

Associate Surgeon, Williamsburg Hospital.

**A** CAREFUL search through the works of general pathology fails to account for chronic cholecystitis except as an accompaniment of and sequel to cholelithiasis. Accepting this view, surgeons have been operating for the purpose of removing stones from the gall bladder, cystic, hepatic or common bile ducts, and ignoring the function of the gall

bladder. Many times its removal is considered the simplest method of preventing the recurrence of stone formation. That you may understand my views of the condition, permit me to say a few words on the anatomy and physiology of this organ.

The gall bladder is pear-shaped, with its fundus directed forward, downward, and to the right, its narrow end or neck going backward and upward toward the transverse fissure

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of the liver. It is three or four inches long, one and a half to two inches broad near its fundus, and will hold from one to two ounces of bile. Its posterior two-thirds is fastened to the under surface of the liver by connective tissue, vessels and its surrounding peritoneum, which frequently acts as a mesentery, suspending it to the vesical fossa, close to the transverse fissure of the liver, permitting considerable movement of the fundus in all directions.

The neck of the gall bladder is twisted into a spiral, and this screw-like arrangement is continued throughout the cystic duct and acts as a valve to check the outflow of bile, but seemingly does not interfere with its inflow from the liver. The cystic duct is from one to three inches long and joins the hepatic duct at an acute angle to form the common duct. The hepatic duct measures from one to two inches in length and the inside diameter of it and of the cystic duct will permit the passage of a No. 5 French catheter. The common duct is about three inches long and will permit, normally, the passage of a No. 7 French catheter. The common duct passes between the first portion of the duodenum and then behind and to the inner side of the second portion, lying under and across between the duodenum and the head of the pancreas, or, in about sixty (60) per cent. of all cases, passing through the head of the pancreas. The common duct and the pancreatic duct usually lie beside each other until they have penetrated the bowel wall through which they run obliquely between the coats, from one-half to three-quarters of an inch, opening into a pouch terminating in a papilla on the mucous surface three or four inches beyond the pylorus. The fundus of the gall bladder usually rests on the transverse colon and can only be successfully palpated when distended with stones or fluid *and* in a thin patient.

In the function of digestion, it is to be remembered that only eggs, milk, and the lean portions of meat are digested in the stomach, that fats,

sugars and starches are passed on to the intestines, where they are broken up by the action of the bile, the pancreatic fluid, and the intestinal juices. Further, we must consider that the starches constitute a large bulk of our nourishment and that one of the acts of the bile is to aid in the conversion of the starches into sugar, that they may be readily absorbed by the system. The function of the bile is fourfold: First, the action of its contained cholic acid to break up the fats and convert them into soap, whereby they are more readily absorbed; secondly, its presence aids the pancreatic fluid in its conversion of the starches and other vegetable products into absorbable material; thirdly, by coating the intestinal mucous membrane, hastening materially the osmosis of the digested food; and fourthly by its direct irritant action on the mucous and muscular coats of the intestine to stimulate peristalsis and hasten the excretion of effete matter. After the bile is secreted by the liver, it is sent down the hepatic duct in such quantities that the bulk of it cannot pass readily into the intestine, as the opening through the papilla into the common duct is only large enough to permit the passage of a small surgical probe. Consequently the excess of it is switched back by way of the junction between the hepatic and cystic ducts, and passes upward, forward, and then downward, into the gall bladder, where it is held in storage for future service. The quantity of bile that is excreted from the liver varies with the period of the day, very little passing during the fasting periods just preceding a meal, but its outflow occurring very promptly and very freely within a few minutes—eight or ten—after the ingestion of the food begins. As the food, which has begun the process of digestion in the stomach, is passed through the pylorus into the intestine, the stimulus conveyed from stretching the pyloric muscle sets in motion the muscular coat of the gall bladder reflexly, and by its contractions we have an increase

in the quantity of bile rapidly poured out into the intestine.

Thus we see that the proper function of the gall bladder is, in many respects, similar to that of the urinary bladder; it acts as a reservoir for the storage of excreted material which cannot be readily passed off as rapidly as it is formed and it also causes its rapid outpouring into the intestine on demand for purposes of intestinal digestion, through the spasmodic action of its muscular coat.

Although bile is a good culture medium for most organisms, it is ordinarily sterile so long as the ducts are patent and its flow unobstructed, but interference with its excretion will cause its infection. Infection may take place by way of the common duct from the duodenum or by the blood current, chiefly through the portal vein. The most common causes of infection are colon bacillus, typhoid bacillus, and staphylococcus albus, but, as has been proved by Cushing, Richardson, and others, mere infection of the bile is a failure so long as there is no obstruction of its free passage out of, as well as into, the gall bladder; so long, in other words, as it can be sent freely and promptly into the intestine. Chronic cholelithiasis is one of the most common of abdominal conditions, one in which error of diagnosis is most commonly made, through inattention on the part of physicians to the few simple facts in the physiology of digestion which I have mentioned above. Patients are constantly coming to their physicians with reports of digestive difficulties, not usually accompanied with rise of temperature, often with absence of pain, but with a feeling of weight at the pit of the stomach, and of nausea and distension coming on more or less rapidly after food has been taken into the stomach, and of distress increasing with the lapse of time, until the food has "gotten well down into the intestine. These conditions, coming on gradually during a term of years, usually with a history of some bowel infection—typhoid fever standing pre-eminent—lead to various infections

which are common to hot climates or to the hot season of the year, and become responsible for a catarrhal condition of the upper intestine and, by continuity of surface, the mucous membrane lining first, the ducts and afterwards the inner surface of the gall bladder. The consequence of such a catarrhal condition is that common to all mucous surfaces where drainage is interfered with. In the case of the gall bladder, it means a very marked increase in the outpouring of mucus and in the excretion also of cholestrin. With the increased output of mucus and the thickening of the mucous membrane, particularly in the ducts, from the slow inflammatory changes, we have a stasis of bile, with a precipitation due to the presence of rapidly multiplying bacteria, which cannot readily be washed out, owing to the more or less constant plugging of the cystic duct by small masses or plugs of thickened and almost gelatinous mucus. A factor in this condition is *the dependent position of the fundus of the gall bladder*. Where, as I have stated before, interference with free drainage occurs in the presence of infection, we have a rapid multiplication of the number of germs and a steady, progressive increase, though not so rapid, in the pathological changes taking place in the mucous membrane and in the fluid contents of the gall bladder. The production, later on, of gall stones, due to the precipitation of various materials held in solution in the bile, and the condition of cholelithiasis, which is so constantly looked for by the general practitioner, presents a military necessity for operative procedure.

Within the last two or three years, Cabot, of Boston, Richardson, Keene, Deaver, and others have begun to recognize the fact that not only are many so-called stomach conditions reflex, and due to this chronic condition of cholelithiasis, but, going further, they are beginning to recognize the fact that a very large percentage of cases of disease of the pancreas are due, primarily, to a preceding diseased condition of the gall bladder and bile



ducts; so much so that Kehr finds as many as 14 per cent. of his cases of chronic cholelithiasis show secondary infection of the pancreas, and of those cases in which gall stones are present in the common duct with cholangitis, as much as 50 per cent. of infections of the pancreas. In consequence of this, he seeks to heal the inflammatory process in the pancreas by removing the gall stones or other sources of biliary irritation.

These conditions of chronic gall-bladder disease, *where gall stones are most often absent*, are constantly mistaken for lesions of the stomach, ulcerations or cancer of its pyloric extremity. Many times these mistakes in diagnosis are due fully as much to lack of anatomical knowledge as to a misapplication of physiological facts. The so-called stomach symptoms are often *dull* pain in the right epigastrium, nausea, more or less pronounced vomiting (with some patients), partly reflex, partly due to direct irritation of the stomach, a feeling of weight, distention of the abdomen during, as well as after, a meal, pain just below the cartilage of the tenth rib and about two inches to the right of the median line, this pain often extending around the side or going directly through to the back at a point just below the right shoulder blade. Jaundice is usually absent. There is usually no temperature, and tumor formation, like jaundice, is present only when obstruction occurs.

What gives the best promise of relief in these cases? The profession and the laity have used oil by the barrel, Carlsbad and other salts by the ton, various laxative preparations, such as chologestin, the various cascara and other proprietary or semi-proprietary preparations, without stint, and all practically to no avail. Having in the beginning compared the function of the gall bladder to that of the urinary bladder, I must ask you to believe me when I say that the treatment of the two organs in very similar conditions is to be considered precisely alike; and the secrets of treatment are incision, drainage, and

*lavage* as taught by Mayo Robson. In the case of the urinary bladder, it is a comparatively easy thing, especially in women, to incise and drain, and in a reasonably short time get rid of the most exasperating cystitis. Acting upon the same principle with the gall bladder, we get rid of chronic inflammation by the very same methods. The incision of the abdominal wall, of the gall bladder, and the draining of it through a rubber tube are done so constantly by surgeons that the operation is not a novelty, but the secret of success consists in something beyond this—in placing an incision through the abdominal wall as high up as circumstances will permit, in lifting the gall bladder after it has been incised and emptied, and fastening it to the abdominal wall as much above the horizontal plane as the lower edge of the liver will allow, thus giving it a chance for drainage backward into the ducts at a better angle than it had formerly occupied. Next, the introduction into it, after it has been fastened to the abdominal wall, of a large-sized rubber drainage tube, which is stitched carefully into place, not only to the gall bladder but to the skin as well, to prevent its being dragged out by some movement of the patient; and, after the third day, a careful, systematic washing out of the gall bladder day after day, with warm sterile saline, until we have a change in the fluid poured into the receiving bottle, and, from a bile which comes out literally loaded with bacteria, we come to a condition where we have only sterile bile passed through the drainage tube, or later, after this has been removed, through the resulting sinus.

When the bile, pouring out through the drainage tube or canal, has become thoroughly sterile, we shall have a rapid closing of the sinus, in spite of all efforts to keep it open. So long, however, as we fail in our efforts to get the gall bladder practically clean and *are sure there is no obstruction in the ducts below us*, we must expect a persistence of drainage.

As a proof that a full gall bladder,

*plus* the muscular action necessary to empty it rapidly, can produce pain of the character usually ascribed to gall stones when they are absolutely not present, I beg to state that such attacks of so-called biliary colic can be produced by introducing, through the drainage tube, sufficient of a 50 per cent. solution of hydrogen peroxide to fill the gall bladder. The extreme distention due to the giving up of oxygen, in the absence of a diseased membrane, very promptly produces the pain extending into the point in the right hypogastrium and to the point under the right shoulder blade, which is so commonly ascribed to gall stones jamming in the neck of the gall bladder or in the ducts. I mention this experiment because in the cases with which I have been brought into contact, I have found so many times that this pain was due not to the presence of gall stones—which have been absent so often—but to the jamming in the bile ducts of masses of thick gelatinous mucus. So far as internal medication goes in these cases, before, during, or after operation, I would

say that before operation the diet consists almost entirely of skimmed or buttermilk, or, if nausea be too pronounced, rectal feeding, the relief of the catarrhal condition by continual exhibition of Carlsbad or other salts in not cathartic but laxative doses, and oftentimes lavage of the stomach, as the emptying of the stomach precludes the spasmodic action of the gall bladder, which is so painful to the patient. During the convalescence of the patient, I have found some of the formalin preparations, urotropin for choice, exhibited in doses of from five to twenty grains in the twenty-four hours, to hasten improvement in the condition of the gall bladder, as much of it is excreted by the liver as well as by the kidneys.

(Discussion of Paper—page 184.)

1275 Bedford Avenue, Brooklyn, N. Y.

See *Journal A. M. A.*, May 15, 1909—pages 1620, 1627, 1630.

See *Journal A. M. A.*, August 11, 1906—page 402.

See *Journal A. M. A.*, September 22, 1906—page 905.

See *Journal A. M. A.*, April 11, 1908—page 1161.

## SYPHILITIC STRICTURES OF THE RECTUM.

By JOSEPH P. MURPHY, M.D.

BROOKLYN, N. Y.

Consulting Surgeon to St. Joseph's Hospital, Far Rockaway; Surgeon Coney Island Hospital; Associate Surgeon St. Mary's Hospital.

**I**N presenting this subject to the Society, I do so, not with the idea of advancing something new or unfamiliar, but to report the history of a case which stands out conspicuously in my personal experience, and trust it will recall the experiences of others and evoke profitable discussion.

I shall deal with strictures due to tertiary syphilis, and only with the macroscopic pathology of these conditions.

*Anatomy.*—The rectum is from four to six inches in length and composed of four separate coats—mucous, sub-mucous, muscular, and peritoneal or serous—which surround it in its upper portion. Any inflammatory process developing in these layers may travel along these tracts.

Gummata may occur in any portion of the body in which there is connective tissue.

**REPORT OF CASE.** Woman; married, 42 years of age. One living child; of alcoholic habit; family history negative; no history of miscarriage or anything pointing to a previous syphilis. General appearance of a healthy, well nourished woman about 145 pounds in weight.

In April, 1900, she was taken with acute pains in abdomen accompanied with diarrhoea.

Examination of abdomen showed a marked hypertrophy of liver, irregular and nodular. A diagnosis was made of cirrhosis with a functional derangement of the intestine.

She felt better next day and was not seen again until May, 1900, when she complained of difficulty in defecation, which act was accompanied with considerable pain.

Rectal examination disclosed a stricture



quite high up. There was no history of a discharge, no history of pain except at stool, and that only within two weeks.

Dr. Walter Wood saw the case. Other than a stricture no diagnosis was made. A colostomy was advised, which was performed in June, 1900, Dr. Wood assisting. The fascia of the abdominal wall was yellow, which at the time was considered due to the cachexia.

The abdomen was opened on the left side. The peritoneal cavity contained a small amount of lemon-colored serum which also contributed to a diagnosis of malignant disease. About six inches from the anal margin of the rectum a symmetrical spindle shaped tumor, completely surrounding the bowel, an inch thick at its zone in widest part, and tapering in its long axis, was found. The mesentery of the sigmoid was exceedingly short, and with difficulty the sigmoid was attached to the abdominal wall. A diagnosis of malignant growth was made at time of operation.

The convalescence was stormy, a condition of suppression of urine came on about a week after operation, the liver rapidly increased in size. Gradually from the distal portion of the bowel, at the site of operation, a condition not unlike a dark red carnation appeared. The case was again seen by Dr. Wood, and a diagnosis of syphilis was made.

Gummata occasionally develop in the kidney, particularly in cases in which there is extensive gummatous hepatitis, which condition probably accounted for the suppression.

A rigid antisymphilitic treatment was instituted. The woman had a marvelous vitality. The liver became normal in size, the jaundice disappeared, and except for annoyance of an artificial anus the woman enjoyed good health.

For a short period the rectum was dilated by Wales Bougies, running from above down and below upward. This procedure was negative in results and caused the woman much pain.

She was treated pretty constantly for about a year, when on account of alcoholic excesses she was placed in a private sanitarium, where she occasionally took mixed treatment.

She again came under observation January, 1909—about eight years later, and went to St. Mary's Hospital.

Her habits had been good. Her physical condition was superb. She was anxious to have her artificial anus closed, as she thought that was the cause of her desire for alcohol.

*Physical Examination.*—Heart normal; liver apparently normal; urine negative; blood negative; examination with the proctoscope showed a stricture with small opening about size of lead pencil.

The mucous membrane, as far as I could judge, seemed about normal in character.

I did not deem it advisable to attempt to close the colostomy. The woman went to

another hospital where she died five days after operation.

Question: Was it syphilis?

She certainly responded to antisymphilitic treatment, but may there not be an analogous condition?

*History.*—The influence of syphilis as an etiological factor in the production of rectal stricture has in the past been a subject of much controversy. Very few took the trouble to examine the rectum. Naturally, the question was studied from the clinical standpoint, and deductions made from the sequence of symptoms and the often unreliable history of the patient.

Syphilis was a venereal disease and was left to the syphilographers. In 1875 Fournier advanced the theory that these strictures consisted of an interstitial hyperplasia, ending in a fibrous degeneration and a persistent contraction of the wall of the gut. At the present time more systematic examinations are made and the laboratory and microscope have revolutionized pathology and rendered diagnosis more positive.

Tertiary lesions may occur in about 10 per cent. of all cases of constitutional syphilis, and in no regular order with regard to time of the initial lesion. They may come with the secondary eruption or after a period of years and rarely cause stricture.

*Etiology.*—Tuttle states positively that all syphilitic strictures of the rectum are preceded by ulceration as a sequence to diffuse inflammation of the rectal wall, *i. e.*, gummata in the sub-mucous tissue. These ulcers thus formed may run around the gut in an annular manner or form isolated ulcers with rounded or serpiginous outline having a remarkably uneven surface and well cut and slightly undermined edges. They are localized, involve the deeper tissues, are obstructive, leave cicatrices in healing, and do not readily yield to mercury.

*Pathology.*—These cases are not seen in the early stages, as usually there are no symptoms referable to the condition. In its early stages (Tuttle) the macroscopic appearance

may show the ulceration of the mucous membrane, or a localized thickening, a lack of elasticity, with leathery consistency. Where the ulceration has healed, the mucous membrane is dry and has lost its shiny appearance. Where the ulcer and stricture exist, the ulcer is bathed in a muco-purulent or sero-sanguinous discharge.

There is a tendency for the inflammatory process to extend upward as was noted in the case reported, and the rapid development of this condition was probably due to an activity aroused by the operation.

The healed portions appear as bluish-white cicatrices, dense, hard, and almost ligamentous to the touch. The fibrous portion is not always the narrowest, for where active processes are going on, proliferating granulation and congestion may cause a greater diminution in the calibre.

In the annular type of stricture two ulcers are frequently noted, one above, due to mechanical disturbances of feces lodged at that point, and causing a concomitant dilatation with a thinning of the bowel wall. Fistulous tracts are occasionally found beneath the mucous membrane, leading down from the stricture into the perirectal tissue.

Upon the level of the stricture itself, especially where it is of the annular variety, the mucous membrane may appear to the eye normal. This was the condition of the mucous membrane in the case reported at time of examination, years after the primary operation. Examination with fingers demonstrated that the mucous membrane is adherent and amalgamated to underlying structures.

*Symptomatology.*—In many of the cases there is no latent period. The majority of rectal strictures are seen by the general practitioner before obstructive symptoms are noted, the patient often complaining of sciatica, dysuria, a feeling of heaviness in the back or abdomen; an ordinary rectal examination differentiating it from this condition and discovering

the stricture. In the case reported the pathological condition of a stricture was well developed when the patient complained of symptoms referable to rectum.

The ulcerative stage, according to Tuttle, is associated with pain dull and constant, reflex pains in the perineum, genito-urinary and digestive organs, and tenesmus, discharge of blood, mucus and pus. None of these was noted in the case reported.

*Obstructive.*—Finally, the mechanical impediment is the typical sign of the disease. Increasing and persistent constipation, from a simple irregularity to periods of some duration, and diarrhoea associated with impaction. With this diarrhoea there are mucus and blood. Tympanites and tumor due to impacted feces.

*Diagnosis.*—It is to be remembered that syphilis is common in the community and that there are probably more families with a luetic than a tubercular taint (Osler). A careful, guarded inquiry should be made to find out if the patient had had any rash, sore throat, or lost hair. Examine for old cicatrices, and, in women, for history of abortions. Syphilitic strictures are more common in females in the proportion of eight to one.

Tuttle lays stress on the pathognomonic odor of cancer. Matthew de-rides this as a differential diagnostic aid.

Carcinoma usually presents an annular ulcer, broken down in the middle, giving it a crater-like or ovoid appearance. Gummata are more prone to extend in the long axis of the bowel.

In general, a hard, fibrous narrowing would tend to differentiate it from other malignant disease. The Wasserman reaction is positive in about 90 per cent. of cases. It has no diagnostic value if patient is under the influence of mercury.

*Treatment* depends upon pathological conditions. They respond slowly to mercury and have a tendency to recur.



## LONG ISLAND MEDICAL JOURNAL

A Forum for the Discussion of all Topics involving the Medical Profession and especially that of Long Island.

EDITOR-IN-CHIEF

PAUL MONROE PILCHER, A.M., M.D.

ASSOCIATE EDITOR

JAMES MCFARLANE WINFIELD, M.D.

EDITORIAL OFFICE:

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Further Information on advertising page 3

MAY, 1910.

### MEDICAL EXPERT TESTIMONY.

THERE is probably no subject which is related to medicine that causes more discussion by the laity than that of compensation for injuries received from accident. As a rule there are a number of professional men interested in the case. First, the family physician of the injured person. Second, the consulting surgeon who treats the immediate injury. Third, the examining surgeon of the corporation by whom the injured person was employed. Fourth, the various lawyers who are employed to see that the injured person's rights are defended. If a case never comes to trial, but is settled out of court, the medical expert is not involved, but when a company refuses to properly compensate an injured man for its carelessness, the courts are appealed to and the doctor is thrown into a new environment. There occurs a conflict between law and science and the physician naturally leans toward the scientific rather than the legal aspect of the case. It is natural that a surgeon should be prepossessed in favor of a patient whom he has treated, and it is also human nature to be preju-

diced in favor of a corporation if we have been employed by it.

It is a sad experience, however, to go into a court room and listen to the distorted expert testimony of a scientist whose ability we know to be great, whose honesty in the ordinary walks of life is unquestioned, and yet whose testimony, influenced by the expectation of reward, is so prejudiced, unreasonable, and given with intent to mimic or to magnify (as the case may be) the results of an injury, that it becomes almost dishonest.

These reflections have been prompted by a case recently tried in the courts of Brooklyn in which there was a decided difference of opinion between the medical experts on a question of fact, the interpretation of certain symptoms. A hypothetical question was prepared outlining a certain train of cerebral symptoms which had developed in a young physician after an accident. The experts employed by the railroad company stated that the symptoms did not indicate that the patient had a fracture of the skull, while the experts engaged by the patient testified that they did. In other words, the experts differed on a question of fact. If the same case had been reported before any of our medical societies, there would have been a free discussion of the case and without any doubt the same gentlemen who gave such contrary opinions before a jury would easily and quickly have agreed upon a diagnosis.

It is difficult for the onlooker to avoid the conclusion that something is radically wrong with our present system of developing expert testimony. The physician is not at fault. Often his real opinion cannot be expressed,

but a false impression conveyed to the jury, because he is required to answer "Yes" or "No" to questions which need a qualified answer.

Another case in point was that of an old lady, who, falling from a car, was more or less severely injured. Previous to the injury there was no evidence of hernia in the patient. Directly following the injury, a tender swelling was found in the region of the umbilicus, and when examined by a surgeon, who was consultant to many of the hospitals in Brooklyn, and some outside of the city, the condition was pronounced to be a traumatic hernia resulting from the injury. When the case came to trial, a New York surgeon of wide experience, who had never examined the case until a year after the injury, testified that such hernia could not occur and that in his opinion the accident had nothing to do with the development of this rupture. It is to be presumed that if the New York specialist had been employed by the plaintiff he would have been of the opinion that the hernia was directly due to the accident, as it no doubt was. The jury found a verdict in favor of the plaintiff.

Such differences of opinion are sure to occur between honest medical men as long as the present system prevails. One evil, however, might be eliminated and that is the professional medical expert: the man who is always found on the stand testifying for the defendant. It is sufficient to say of him, that although he may win cases for his employers, still he does so at the expense of the esteem of his fellow practitioners, and very probably takes away with him the contempt of the lawyer whose tool he has been.

The professional expert is prepared to give a definite answer, Yes or No, to a hypothetical question, while the medical witness who is trying to be perfectly fair in the expression of his opinions is confused by the question, which is often so framed that the real facts are distorted and an answer in either the affirmative or negative will leave him in a false position, because he, unlike the jury, is unable to question the facts as passed upon by them, and must answer Yes or No. When forced to answer he invariably favors the side which employs him.

The medical expert should act simply as an aid to the jury in arriving at the facts in a given case, but as long as the present system prevails the jury is left to pass judgment on the testimony of the various medical experts before it can arrive at the main issue of the case.

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#### THE VOICE OF THE PEOPLE.

**S**LOWLY but surely the public press is coming to acknowledge the dangers of Christian Science, mental or thought healing, and all forms of therapeutics which are not in the hands of carefully educated and responsible physicians. Still there remains a dangerous lack of interest on the part of the public when it comes to medical legislation; and who is to blame?

Dr. MacEvitt, President of the Kings County Medical Society, believes that the conditions are due to a want of fraternalism, and that there should be more concerted action on the part of the medical profession. In the monthly bulletin of the Society, he says, addressing the public:



"To your individual medical attendant you are lavish in your praise and affection. To us collectively as 'doctors' you are indifferent. You speak of the closeness of our union, of our great loyalty to each other, yet for some supposed cause condemn the one to the other and smile at the reception and acceptance of your assault upon character without demur. Where then is our loyalty? Where your consistency? You hold us up to contumely as expert witnesses, purchasable for either side of the case, yet you thwart our efforts to enact a law creating a non-partisan Board of Expert Medical Witnesses. You enact laws placing dispensers of spectacles and repositories of imaginary vertebral dislocations on an equality with us—in a legal sense—thank God, it is not in your power to do more. You create a Board of Health composed chiefly of laymen. You make it the arbiter of regulations governing the health of the community, permitting it to ignore the voice of the Medical Faculty, nay, more, you compel us servilely to follow its dicta. Our importance in municipal affairs (thanks to ourselves) is not considered of sufficient importance even to attract your attention.

"We are the only class of men who work for the city without compensation. Why, I ask, should not physicians be paid for their services to the city when such are an actual necessity not to be dispensed with? With all our private charitable work we supinely crave to be permitted to serve the city gratuitously in hospitals and dispensaries. Harken to the dear Public's reply: 'You give your services voluntarily for the experience and practice on the sick poor.' In the same breath it accuses us of barbarism in humane animal experimentation, which we carry on, not for our but for its good. Just so long as we give our talents for nothing, just so

long will they be accepted by the charitable, honest, hard-worked legislators, who voice the will of the people. How can these and many other evils be remedied? By concerted action on the part of the medical profession. Is it too radical an opinion to express when I say that in matters pertaining to our own and the Public's welfare there should be some agreement between us and other organized medical bodies? Within a few years, sect in the practice of medicine will be unknown. Theory in therapeutics now alone separates the leading schools in medicine. We know that with the modern theory of etiology of disease accepted medication will play an unimportant role."

#### A POOR REWARD FOR LONG SERVICE.

MISS EUGENIA FROST, Supervisor of Nurses of Seney Hospital, has resigned her position. Miss Frost has been connected with the institution for many years, first as pupil nurse, then for a number of years in charge of the operating room, and for the past five years as Supervisor of Nurses. No one could have been more earnest in their work, no one has had the interests of the institution more at heart, and no one has given more of their life to it than she, and yet after years of service, in order to shield others, she is made to bear the blame for the terrible accident which occurred recently at the hospital. Truly it is the age of chivalry.

Rather than submit to the injustice of the charge, she has resigned from the hospital. She has the sympathy and respect of all fair-minded people.

## MEDICAL NEWS.

Edited by JAMES M. WINFIELD, M.D.

### Suffolk County Medical Society

—The semi-annual meeting of the Suffolk County Medical Society was held in the Cortlandt House, Bay-shore, N. Y., on Thursday, April 28, 1910.

#### PROGRAM:

1. "The Wasserman Reaction," By Dr. John E. Wiseman, Kings Park; discussed by Dr. Hideyo Noguchi, Rockefeller Institute; Dr. Victor C. Pederson, New York; Dr. John W. Moore, Central Islip; Dr. A. J. Rosanoff, Kings Park.

2. "Treatment of Scarlet Fever, Measles, and Diphtheria at the Willard Park Hospital," Dr. S. R. Leahy, Kings Park.

3. "Feeding, Care and Treatment of the Child in its First Year," Dr. N. S. Wadhams, Westhampton Beach; discussed by Dr. W. H. Ross, Sayville; Dr. A. E. Payne, Riverhead.

4. "Occipito-posterior Presentation," Dr. E. K. Morton, Mattituck; discussed by Dr. C. E. Wells, Sag Harbor; Dr. A. H. Terry, Patchogue; Dr. John Benjamin, Riverhead; Dr. J. L. Halsey, Islip.

#### OFFICERS FOR 1910.

*President*, S. Busby Allen; *Vice-President*, William A. Hulse; *Secretary*, Frank Overton; *Treasurer*, Barton D. Skinner; *Censors*, W. N. Barnhardt, Lawrence Coffin, F. E. Benjamin.

### New Contagious Disease Hospital

—The New York Health Department is planning to establish a hospital for contagious diseases on the Haacke farm near Jamaica, L. I. The city already owns the farm. It will take at least three years to complete the buildings and will cost \$7,000,000.

**Southampton Hospital**—Wyandanch Tribe of Red Men have inaugurated a unique plan to aid the Southampton Hospital. A fraternal order fund was planned to which a contribution of either five or ten

cents each month will be sought from every member of the various secret societies of the eastern south side of Long Island.

The hospital is supported entirely by gifts, and, since its beginning, has been of great benefit to many residents of the Hamptons. It is located in the village of Southampton, and with the hospital at Greenport, is the only institution of the kind on Eastern Long Island.

**To Reopen Hospital**—An effort is being made to reopen the Astoria Hospital, the well-equipped buildings which stand at the corner of Temple and Crescent Streets, Long Island City. The hospital existed for four years and up to consolidation, when it was discontinued because the city of New York refused to give financial aid. A committee consisting of Drs. Fitch, Anderson, Platt, Fincke and Mencken was appointed to find out what aid could be given the institution if it were opened. There is much need for the institution in the upper section of Long Island City.

**Long Island State Hospital**—Dr. William L. Russell, formerly first assistant physician at Willard State Hospital and for nearly seven years medical inspector of the State Commission, has been appointed superintendent of Long Island State Hospital at Brooklyn to succeed the late Dr. Oliver M. Dewing.

This appointment has been ratified and accepted by the board of managers of the Long Island State Hospital and Dr. Russell will assume the duties of his new position between May 15th and June 1st.

**Rockaway Beach Hospital**—Work on the building of the Rockaway Beach Hospital and Dispensary is fast nearing completion, and this handsome fireproof structure will be one of the finest and best equipped



institutions of its kind and size in the State of New York.

The addition of a wing on the east side of the building for a laundry was made necessary by the lack of space in the basement for this department; this addition, however, will greatly improve the comfort of patients.

This hospital will afford accommodations for seventy-five patients, and every convenience and comfort has been carefully studied. The first floor is devoted to private wards, accident wards, examining room, reception room, executive office and dining room. The second floor is given up to three large wards and private wards, and on the third floor is located the operating room, private rooms and nurses' rooms.

The contractors are working diligently to finish their work by June 1st, and it is hoped to have the building in readiness for the reception of patients not later than July 1st.

**Hempstead Hospital**—The Hempstead Hospital Association of Hempstead, L. I., has filed incorporation papers and will take over the South Shore Hospital.

**Mt. Sinai Gets \$130,000**—Adolph Lewisohn has contributed \$130,000 toward the erection of a pathological laboratory at Mount Sinai Hospital. The building will be known as the Mount Sinai Pathological Laboratory Adolph Lewisohn Foundation, and it is planned to make it one of the best equipped laboratories in the United States.

Mr. Lewisohn, who is greatly interested in the pathological work of the hospital, already has given it \$70,000. The directors of the hospital have purchased additional ground on 100th Street near the hospital, on which the new laboratory will be built.

**Hospital Association**—The Hospital Saturday and Sunday Association of Brooklyn has been chartered with the Secretary of State, with the following as Directors:

William G. Low, William F. Dudley, H. D. Atwater, Rev. Paul F. Sweet, Bernt Berger, Isaac H. Cory and Joseph H. Lester of Brooklyn.

**Closer Relations Between College and Hospitals**—Closer relations are being established between the College of Physicians and Surgeons and Mount Sinai Hospital and the German Hospital. Drs. Nathan E. Brill, Emanuel Libman, Arpad G. Gerster and Henry W. Berg, of the staff of Mount Sinai Hospital, and Drs. Frederic Kammerer, Norbert Stadtmuller, and Otto Hensel, of the staff of the German Hospital, have received appointments in Columbia University.

**Medical Department of Cornell University**—Cornell has changed the curriculum of its medical department, so that only one year will be spent in Ithaca instead of two as formerly.

**A Campaign for Public Health**—The first Brooklyn lecture in the campaign of the American Medical Association for the improvement of the public health was given on April 7th.

Dr. Eliza Mosher presided, Dr. J. M. Van Cott spoke on bacteria, Dr. J. P. Warbasse on fresh air, Dr. Laura M. Riegelman on the food of school girls, and Dr. Grace P. Yankaur of Manhattan on adenoids. These lectures will be given at intervals in different parts of Kings and Queens counties.

**Convicts Dr. Thomas Under Food Law**—Dr. Julian P. Thomas, once well known as an automobilist and balloonist, has been found guilty on an indictment charging violation of the pure food law. The Government contended that the label describing the uncooked wheat bread he sells as a cure-all for stomach trouble was a misrepresentation of the actual properties of the article, and produced experts to sustain its side of the case. Dr. Thomas moved for an arrest of judgment pending ap-

peal, and this was granted indefinitely. The penalty is \$250 fine.

**The Treatment of Milk**—The Board of Health of the city of New York has passed a resolution declaring that it is the sense of the Board that milk used for drinking purposes should be either properly pasteurized or boiled unless it is what is technically known as certified, guaranteed or inspected milk. It is said that the adoption of the resolution does not mean that all milk dealers will be compelled to pasteurize their milk, but is intended only to place the Board of Health on record in the matter of pasteurization.

The passing of this resolution is the result of an investigation conducted by Dr. Herman M. Biggs, of the Health Department.

**Attacks Medical Colleges**—Dr. Flexner created a sensation at the closing session of the Association of American Medical Colleges when he declared that as many as thirty-five of the institutions in the Association failed to come up to the standard. He criticized some of the methods employed by various institutions, especially their lax requirements for admission.

**Mayor Gaynor**, of New York City, has indorsed the order issued by former Fire Commissioner Hayes that no fireworks should be permitted within the city limits on July 4th.

**Campaign Against Communicable Diseases**—The New York State Board of Health is planning to divide the State into Districts, which will be in charge of a competent physician, who will act as sanitary supervisor in directing a systematic campaign against communicable diseases.

**Individual Drinking Cups**—The Pennsylvania Railroad, in compliance with the order of the State Board of Health, have introduced paper drinking cups on all trains and at all their stations.

**Feeding Oysters Forbidden**—Oysters can no longer be fed, or, as the trade term goes, "floated in brackish water," before they are offered for sale. The Department of Agriculture has ordered that the practice must stop at once. The order affects all the oyster trade in the United States and is of immense importance to dealers.

**Crusade Against Venders of Wood Alcohol**—The Department of Health has begun a campaign against sellers of wood alcohol. Inspectors have visited many saloons and taken samples of liquors offered for sale for analysis. Of the first fifteen samples analyzed, three contained wood alcohol. This step has been incited by the number of cases of blindness due to wood alcohol that have come to the notice of physicians and by the records of the coroner's office, which show a number of deaths each year attributed to wood alcohol.

**Dr. Nammock to Hold On**—That Dr. William Nammock, the coroner's physician of Queens Borough, has never been legally removed from office, and that his term was not co-terminous with that of the coroner appointing him, was the decision recently handed down by Justice Gerard of the Supreme Court, in Special Term, Part I, New York. In his decision the justice takes direct issue with the opinion of Justice Garretson. The decision ends a long and involved legal controversy, and unless further appeal be made, will insure Dr. Nammock his many months of pay, which he has been endeavoring to secure for over a year past.

**Hospital Thieves**—The hospital sneak thief has been more than active in the New York hospitals during the last few months. The latest victim is Dr. Charles Jewett, of Brooklyn, who after performing an operation at the Long Island College Hospital, found that his clothes which had been left in the locker had been rifled and his pocketbook



and valuable watch stolen. No clew to the thief has been obtained.

**Hospital Board Dine Dr. Jacobi**—The Board of Directors of the Hospital for Deformities and Joint Diseases, 1919 Madison Avenue, gave a dinner at the Waldorf-Astoria April 20th, in honor of Dr. Abraham Jacobi, senior consultant of the hospital. Edward Lauterbach was the toastmaster, and among the speakers were E. M. Gattle, Dr. Joseph D. Bryant, the Rev. Stephen S. Wise, Dr. E. M. Baruch and Dr. Reginald Sayre.

**Dr. William Schroeder, Sr.**, addressed the Masonic Veterans on April 30th. His subject was "The Early History of Masonry."

**Dr. Nell W. Bartram** has been appointed on the staff of the Kings Park State Hospital.

**Dr. James Cole Hancock** has resigned as Professor of Ophthalmology at the Brooklyn Post-Graduate Medical School.

**Dr. Glentworth R. Butler's** well-known book, "Diagnostics of Internal Medicine," has been translated into Italian. The Italian title is "Trattato di Diagnostica Medica."

**Dr. Robert L. Moorhead** announces his removal to 247 Madison Street, Telephone 3007 Bedford, and the limitation of his practice to diseases of the ear, nose and throat.

**Dr. Ernest Schalck** has removed to 526 Putnam Avenue.

**Dr. Robert Ormiston Brockway** announces his removal on May 1st to 67 Hanson Place. Telephone, 4300 Prospect.

**Dr. M. J. Dattelbaum** announces his removal to 1125 Eastern Parkway, corner of Utica Avenue. Telephone, 865 Bedford.

**Dr. LeGrand Kerr** has signed a contract with the firm of Funk & Wagnalls to publish his new book, entitled, "The Care and Training of Children." This later volume is really a sequel to his earlier work, "The Baby—Its Care and Development," and deals in detail with the care and the mental, physical and moral training of children from two to fourteen years. The matter has been placed upon the press and will appear sometime late in the summer.

With "Diagnostics of the Diseases of Children," this makes three volumes which Kerr has written and published.

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**Dr. George A. Evans**, of Brooklyn, died March 31st. He was 65 years old, a graduate of Bellevue Hospital Medical College, '73, a member of the A. M. A., the Medical Society of the County of Kings, and the Associated Physicians of Long Island.

# TRANSACTIONS

OF THE

## BROOKLYN SURGICAL SOCIETY.

The President, J. R. KEVIN in the Chair.

*Regular Meeting, December 2, 1909.*

### COMPOUND FRACTURE—DISLOCATION AT ANKLE JOINT.

DR. F. E. BROWN presented two cases:

CASE I.—Four years ago while walking along pavement patient stumbled and strained the external lateral ligament of ankle. He was thrown forward and came down upon the same ankle with full force tearing the internal lateral ligament, the fascia, the skin over it, and fracturing the lower end of the fibula. A photograph taken by Dr. Graham and showing the condition of the parts on admission to the hospital was exhibited. Considerable passive bleeding was present.

Under an anesthetic the foot was scrubbed and an attempt made to reduce the foot upon the leg. Reduction was prevented by the condition of the parts. There was a separation of the lower tibio-fibular articulation and a comminuted fracture of the lower end of fibula one and one-half or two inches above the joint. This fracture of the fibula seemed to prevent reduction of the foot as a whole. An incision was made down over the fracture, pieces of bone were removed and the foot was easily replaced. A small rubber tube drain was inserted deeply in front and behind the joint, and a wet dressing and a Volkman's splint applied. For four or five days nothing peculiar happened. The drainage tubes were removed at the end of six or seven days, the Volkman's splint changed to a reinforced plaster cast and the wound dressed from day to day. At the end of four weeks the cast was removed and the foot found to be in good position, fibrous union of the fibula and internal lateral ligament had occurred, the ankle joint

was fairly well healed and passive motion was started. The patient left the hospital at the end of eight weeks on crutches, the cast being removed each day for massage, he used a cane at the end of the tenth week and continued with that cane for about a month longer. He went to work at the end of three months and had no trouble except some pain during changes in the weather when a storm was brewing. There is not much to see on inspection except a broadening of the ankle joint and the scars of the condition.

The second case presented practically the same condition, but was caused in a different manner. An engineer's foot was caught between a large fly-wheel and belt and several revolutions occurred before the engine could be stopped. The condition was similar to that of the preceding case with the exception that the fibula was not comminuted. There was no difficulty experienced in reduction. A small rubber tissue drain was inserted, and removed on the fifth day and the plaster applied. The second patient left the hospital at the end of three weeks, the cast being left on six weeks. He was up on crutches using a cane three weeks longer and went back to work. At the present time, six years after the injury, the patient experiences no trouble in using the foot.

DR. WALTER C. WOOD said that this case showed very nicely that in an accident of this kind, movement is chiefly at the anterior joint and not at the ankle. I have seen this several times. There is not as large movement at the ankle joint proper as one would anticipate by seeing the man walk. The bulk of the motion is in the fore joints of the foot.



## ADENOMA OF THE COLON.

A case was reported by Dr. Russell S. Fowler.

In discussion of the case Dr. W. C. Wood said:

The question as to how malignant disease of the large intestines should be treated when it is advisable to remove the same is one that has caused me some thought. I have done some of these cases and have had a leak form at that portion of the colon not covered by peritoneum and have not had the satisfactory result indicated here to-night. One can perform the Mikulicz operation in two stages contrary to the usual procedure, to avoid any leak in that part of the colon not covered by peritoneum. The procedure is, first, to mobilize the colon and bring it through the wound or through a special stab wound, and approximate those portions of the colon not covered by peritoneum in the form of a *U* and leave that portion in the abdominal wound till union has occurred. Then, remove the colon and treat the spur that remains according to the old principle of treating spurs in connection with an artificial anus. I believe there is some authority that such an operation has a lower mortality than the operation in one stage.

I would like to ask some of the other members present who have removed malignant disease of the colon, especially at the sigmoid, about their experience in regard to leakage at that triangular portion of the colon which is not covered by peritoneum.

DR. LEWIS S. PILCHER said: I was trying to think if I have had any special experience along that line. Of course, I have met with failures in connection with operations in this vicinity but the disasters which I remember have been due to too great interference with the vascular supply and subsequent necrosis, rather than from any failure of rapid union with leakage due to the anatomical condition which has been referred to. I have had my successes also. In one

case I made a broad approximation of that portion from which the mesentery was stripped, covering it with the mesentery and with the leaves or folds of the mesentery on either side, making rather an acute angle to be sure but yet securing approximation of the serous portion of the outer side of the loop of intestines that is so formed, and at once getting complete approximation and complete union of the whole of the cut surfaces. I have been able to do that, I recall, in one or two cases in the past. I think that can be done in cases in which everything is favorable for it. I never have resorted to the method which Dr. Wood has suggested to us. I have been able to get union in the descending colon primarily, with the excision of a portion of it, and while I am quite sure there would be instances in which it might be desirable, in order to shorten the time of the operation, to provide some temporary arrangement, and later at a second stage, close the hole in, yet I should rather expect that that would be the exceptional case and not the regular procedure.

DR. FOWLER said further in discussing the case: It is recognized that many times we do get leaks from resections of the large intestines. In one such case, the presence of a drain which was removed on the third or fourth day, seemed to be responsible for the leak.

The lateral anastomosis seems preferable to the suture anastomosis.

In further discussion, Dr. W. C. Wood said:

My attention was called by Dr. Mayo, in Rochester, a year ago to the mortality in resections of the large intestine. He said he had too large a mortality and had resorted to the two-stage operation as I have outlined it. He said, in his hands, it gave the lowest mortality. If one does not do a two-stage operation, it is very important to follow out the method Dr. Pilcher has suggested. I have had two autopsies on cases I have lost.

**GUNSHOT WOUND OF BACK.**

DR. WARREN S. SIMMONS reported the following case:

On July 5th, a school girl about 16 years of age, while walking along the street, suddenly fell down complaining of pain in the back immediately following a revolver shot. It was afterwards found that two colored gentlemen were celebrating and one shot a revolver out of the window and the bullet entered the child's back just above the right scapula about three inches to the right of the median line. Patient's family history and past medical history were negative except the usual diseases of childhood. Sight, hearing and other senses, and heart, lungs, etc., all normal.

When brought to the hospital, bullet wound was present but otherwise, patient was in normal condition. Next day patient complained of difficulty in moving legs and experienced complete motor and sensory paralysis two inches below umbilicus downwards, loss of sensation more or less above that level in the back and incontinence of urine and feces.

An injury to the cord was recognized but the mode of injury was in doubt. X-ray pictures seemed to show a shadowy suspicion of foreign body in the vicinity of the ninth or tenth dorsal vertebrae. Incision was made over that area and the canal explored by division of one of the laminae. No bullet could be found and no evidences of hemorrhage were present. The child continued along in the way these children go and went home from the hospital. In October she died. The 8th of October an autopsy was performed by Dr. White who opened the whole spinal canal from the occipital bone to the sacrum and found the cord intact throughout its whole extent. Macroscopically it looked normal. At the origin of the fifth intercostal nerve there appeared beneath the dura mater a mass of tissue about an inch long that was quite soft. The speaker exhibited the lower portion of the cord showing this mass sticking on the side of the cord. The cord was examined

by Drs. White and Murray and it showed evidences of some severe injury and the whole cord was a lot of mush, it being impossible to make out the structure of the cord. There was no evidence of a bullet having entered the spinal canal. No fracture of the bodies of the vertebrae or of the laminae was present anywhere. At the situation of this mass of tissue there was a slight necrosis of the body of the fifth dorsal vertebrae.

**GUNSHOT WOUND OF ABDOMEN AND THORAX.**

DR. SIMMONS presented the following case history:

This patient was in a shooting scrap in a tavern. When brought to the hospital he was a well nourished man in good health. A gunshot wound was found on the inner side of the right arm, another in the posterior lumbar region three inches from the spine, and another in the right axilla in the lower third posteriorly. Temperature was 100 degrees, pulse 110, respirations 50. There seemed to be a good deal of internal hemorrhage from the condition. The right side of the chest was flat, with bronchial voice and respiration above. The wound in the back was first explored, and with the finger in the wound, the kidney could be felt. It was thought wise to open the abdomen and see if there was any penetration of the wall. On opening the abdomen by median incision in the upper part, there was no escape of gas, blood or intestinal contents. No injury of the abdomen seemed to be present. The wound in the axilla was then explored and a fractured rib found. The diaphragm could be felt moving up and down. A large hemorrhage occurred from this wound so it was decided not to go any further and the wound was packed as thoroughly as possible and the chest strapped and pressure was applied to cause the hemorrhage to stop. The wound in the arm was then investigated and the bullet was found there—a regular police size bullet, thirty-eight calibre. There was no way to



determine how many shots struck this man, but, conjecturing that he was bent and running, these three wounds were practically in the same straight line through the kidney, liver, axilla and the bullet became embedded in the arm.

Subsequently there was not much of interest except the extremely rapid respiration, up to 66 and 70 and remaining between 50 and 60 for a week. It gradually quieted down and the packing was taken out on the sixth day. There was an escape of bloody serum, washing out clots from the thoracic cavity. In three weeks' suppuration occurred, a drainage tube was inserted and at that time there was some localized pneumonia at the lower part of that lung. The wound finally all cleared up and the man went home perfectly well. It was rather remarkable that he could get well from these wounds and also remarkable what a hole a thirty-eight calibre bullet can make.

#### INVAGINATION OF THE CECUM THROUGH THE ANUS.

DR. NORMAN P. GEIS reported the following case:

Patient, aged 3 years. Third child of family. Family history negative, previous personal history negative with the exception of measles, whooping cough and diphtheria. Two weeks ago swallowed coin which mother says did not appear in stools. Two days ago patient said to have had a prolapse of the rectum to the extent of six inches. This was put back and held by plug for two hours. In hospital interne found mass down and tried to replace it but could not make it stay.

As mass was greatly distended, blackish and cold, and high saline enema failed, incision was made to left of median line over rectus. Small intestine was found entered into large intestine and this invaginated into itself as far as the splenic flexure of colon. All small and large intestines could be reduced except six inches, this being the part that was external

to the anus before operation. This section was in such bad condition that it was excised. The small intestine was cut through and its end closed first. The large bowel was treated in the same manner. A lateral anastomosis was done. Wound closed. Condition good.

October 5th, temperature 99 degrees, pulse 100, respirations 22. At night temperature 101 degrees, pulse 164, respirations 28. Movement occurred, stool being formed. Gas passed freely.

October 6th, temperature 99 degrees, pulse 100, respirations 22. No distension, sleep restful. Gas passed freely and formed stool at nine and eleven A. M.

At twelve noon, while I was again looking at child, it suddenly began gasping for breath and was dead in three minutes.

No autopsy was obtained.

#### SYPHILITIC STRICTURE OF THE RECTUM.

A paper with the above title was read by Dr. Joseph P. Murphy, for which see page 168.

DR. W. C. WOOD in discussing the paper said:

Sometimes the diagnosis of syphilitic stricture of the rectum is not easy. The real question comes up as to whether radical operation for resection of the stricture should have been performed. The patient described in the paper when first seen eight or nine years ago was anything but a promising patient for radical surgery. Whether at a later time an operation could have been done with success is uncertain. These syphilitic strictures of the rectum have sometimes in my experience resolved on antisyphilitic treatment so a radical operation was not necessary.

The safety valve of artificial anus is left on the abdominal wall. Anastomosis below the stricture into the rectum from the small intestine is a difficult procedure, and, I think in a case of this kind, is sometimes possible. The treatment followed by Dr.

Murphy resulting in eight to nine years of life seems sufficient warrant that a fair and conservative and reasonable course of treatment was followed.

An artificial anus is never a very satisfactory condition and one is always tempted to question whether something better cannot be done.

DR. LEWIS S. PILCHER in discussing the paper said: As I have listened to the history of the case the question has suggested itself to me as to the treatment of such cases, which are fortunately not very common in this country at least, and which pathologically are due to conditions outside of the rectum quite as much as inside the rectum, a periproctal development rather than an intraproctal development. After the formation of an artificial anus and a sufficient length of time had elapsed for the restoration of the general health of the patient, would it not be rational to extirpate the lower portion of the bowel, that part which is involved in the disease, possibly the entire length of the rectum as if it were the subject of a malignant disease, and then freeing the sigmoid above sufficiently, bring it down and implant it in the anus and then restore the continuity of the fecal canal from cecum to anus as before. I can well appreciate that such an operation would be one of magnitude and one which should not be undertaken without due consideration, but I should be inclined to think that in some cases at least it would be a feasible one and would like to suggest it as one feature for discussion in connection with such cases.

DR. BOGART said: It seems to me that the treatment of these cases is the most important. I have a man 36 years of age, who came from Central America, and who, although he did not give a history of syphilis, had had it at some time. He had enlarged glands in the groin and I assume he had had syphilis as most of the people in that region have.

Insertion of finger six inches into rectum showed a rectal stricture.

With the proctoscope it could be seen. It was dilated and patient was kept in hospital one week and then went home. The bowels moved regularly. He was afterwards referred to his family physician, but, either the man was not anxious to have bougies passed or the doctor neglected it, and now, six or eight weeks after operation, he is almost as bad as ever.

The question comes up as to whether radical operation should have been undertaken or not. The stricture was six inches internal and it seemed fair to assume it was syphilitic, although there is a good deal of question whether any of these strictures are syphilitic. It seemed to me that to attempt to resect a portion of the man's rectum and do an anastomosis or even bring the sigmoid down, would be a major operation and liable to be followed by serious results. I do not know whether the sigmoid can be loosened up and brought down to the anus and sutured without destroying the blood supply so as to cause the whole or a portion to slough. It might be possible in this particular case to bring the sigmoid down and make an anastomosis with that portion of the rectum below the stricture, but it was a problem what to do with this man, and if bougies had been passed regularly and the patient put on treatment, he could have been kept comfortable for the rest of his life as his function was perfect since dilatation. I think operation to excise the whole thing would be rather formidable.

DR. RUSSELL S. FOWLER said: I have had a few of these cases of syphilis of the rectum but in all but one they have been caused to resolve by anti-syphilitic treatment combined with gradual dilatation.

In one case which occurred a number of years ago at the German Hospital, a woman had an artificial anus made for very extensive syphilis of the rectum. Later the artificial anus was closed as the syphilitic stricture of the rectum resolved under appropriate treatment.

DR. FULDA said: Moynihan has



shown clearly, and I have had the opportunity of following his technique, that by incising the outer plate of the sigmoid, one can strip and mobilize it and anastomose it even with the transverse colon. I removed in one particular case twelve inches of the descending colon, practically the entire splenic flexure and a portion of the descending colon, and made a lateral anastomosis between the transverse colon and the proximal portion of the sigmoid showing that we can bring the transverse colon far down by incising the outer plate as the vessels come through the inner plate and we do not injure nutrition and we can do an anastomosis and can expect a fair number of good results.

In closing the discussion Dr. Murphy said that authorities on rectal diseases have stated that strictures of the rectum due to syphilis are more common than strictures due to malignant disease.

Now, in regard to Dr. Pilcher's suggestion, I have noted that in operating on syphilitic subjects even after

a long period of time from the primary lesion, that the operative interference seems to stimulate something in the tissues to light up the old infection. We know that in strictures of the rectum they are very slow to respond to antisiphilitic treatment and when they do respond, after the treatment subsides, they are prone to recur; and again in some of these cases the mesenteric attachments are so short that it would be impossible to bring it down any further. After eight years this woman had taken very good care of herself in a sanitarium so that when she came to St. Mary's Hospital in January, she was in first-class condition. She went there thinking that we might close the opening by removing the spur. At that time the calibre of the rectum at the site of the stricture was so small that to close up the colostomy was out of the question and to resect the lower portion of the bowel did not occur to me as being particularly good surgery for me to undertake and the after results of the case justified this opinion.

## TRANSACTIONS

OF THE

## BROOKLYN GYNECOLOGICAL SOCIETY.

*Meeting February 4, 1910.*

### TREATMENT OF CARCINOMA.

DR. W. B. CHASE said: All of us have probably used the mixed toxins of erysipelas and prodigiosus in the treatment of sarcoma, but the number of cures have not been enough to be encouraging. It has been discovered, however, that their use after operations for carcinoma has some inhibitory influence and aids in recovery. Just the full measure of its benefit he has yet to determine, but Coley regards it as important.

DR. J. R. TAYLOR said: If I may add a word, last year Hodenpyl, of the College of Physicians and Sur-

geons of New York, had occasion to tap a carcinomatous patient who was enormously distended with ascitic fluid and thought it would be a wise idea to test it as we use serum in other conditions. He has since that time been injecting it into cases of cancer which were inoperable and it seems to be of great benefit indeed. It is a question of obtaining enough of this fluid when cases can be located to carry on a larger series of experiments both in the laboratories and in the wards of the hospitals. Only a week ago Dr. W. E. Butler told me he discovered a case on his rounds

while visiting another patient. It was an inoperable case of carcinoma of the pylorus and of the omentum; in that case there is an enormous amount of fluid present and an exceedingly emaciated condition of the patient; they have taken steps to secure that fluid and carry out the experiments which have been started by Hodenpyl. Of course, this is purely experimental so far. The cases have not been under observation long enough to see how permanent the results are, but if the disease is due to some form of germ as is believed by some of the men who have been studying in the laboratories, that seems to be a rational treatment to pursue under the circumstances.

The serum is simply withdrawn from the patients, and sterilized before being used in the other cases in which it was injected.

#### CHRONIC CHOLECYSTITIS.

A paper with the above title was read by Dr. J. Richard Taylor, for which see page 164.

DR. C. H. TAG asked whether Dr. Taylor had investigated the alcoholic nature of the trouble as to how far alcoholism has any effect on the cholelithiasis? And also in his use of urotropin, has he found any hemorrhage from the kidneys following the use of urotropin?

DR. POLAK said in discussing the paper: I desire to thank the doctor for bringing this subject before the Gynecological Society because this is where abdominal surgery belongs. These cases of chronic cholecystitis are of great interest to me, for it is not only the gall stones which give trouble, but it is the chronic inflammation excited in the region of the gall bladder and the contiguous inflammations set up in this right quadrant which are troublesome. I do not believe it is necessary to wash out the gall bladder daily, as suggested by the doctor. Simple tube drainage of the gall bladder is all that is necessary. There is one question that is not settled in my mind, namely, whether

it is better to do a cholecystostomy or a cholecystectomy. In three instances in the last four years I have had a recurrent empyema in a gall bladder previously drained. I found out this evening why these empyemas occurred, namely, that I did not bring the bladder up in the proper plane, consequently I did not get the straight line drainage.

In operating I would like to ask whether Dr. Taylor uses a pad under the patient's back to throw the gall bladder and liver up. I use Edebohls cushion in these cases.

Another thing occurred the other night. A patient, a woman, whom I had operated on three years ago for cholecystitis and from whom I removed three hundred odd stones. The patient was sixty-eight years old. She made a recovery and the bladder was not washed out. Perhaps that is the reason of her subsequent trouble. She has had three years of comparative comfort. This fall she had pain in the right hypochondrium and abdominal tension and some temperature. This subsided on emptying the bowels, starvation, and poultices over the right upper quadrant. After the temperature was normal for six days, she was allowed to get up. She had an extremely pendulous abdomen. This is an important point. As soon as she got up she had tenderness which recurred in the gall bladder region. That evening she had a chill and the tenderness and tension returned. This again subsided with rest in bed and laxatives, etc. This went on three to four weeks when an exacerbation occurred while lying at rest. Dr. Delatour saw the case with me and said there was no doubt retention of bile due to some obstruction in the duct. It might have been another stone or adhesions about the duct. I operated on her the next night and made my incision directly over the old incision and went right into the gall bladder, which was found perfectly healthy. It was small, fairly well retracted, smooth, and the bile coming out was not in any way



infected. The pathologist reported from the specimen of bile that there was no empyema. Just below there was a bulging pouch; with dissecting forceps I went in and emptied a quart or more of the bile and pus. When the material had escaped I discovered that I was in the duodenum. I drained both the gall bladder and the duodenum. The patient made an uneventful recovery. This gave all the evidences of an empyema following cholecystostomy and yet the abscess which formed was due either to an ulcer through the duct into the duodenum or a fistula between the gall bladder and the duodenum. This is the only explanation I can give because bile has come through both orifices with the drainage. This case might possibly have been better with a cholecystectomy.

Another case I operated on three times, the first time seven years ago, then two years afterwards and the third time five years after the first operation. The patient had two empyemas of the gall bladder following drainage for gall stones. Both of these empyemas occurred in the Ampulla of Vater, the upper part of the gall bladder being perfectly clear but the ampulla distending and rupturing.

DR. V. L. ZIMMERMAN asked Dr. Polak if he was sure of the condition of the duct in the case he operated on three times. Was he sure the duct was patent at the time of each operation?

DR. J. O. POLAK answered that at the first operation he was reasonably sure the duct was patent. The woman had one large stone. He was able to pass a probe through the duct and palpate the stone. The second and third times he was satisfied to simply open and drain that quadrant because the woman was in very bad condition. He never saw the duct in either of the two last operations.

DR. W. B. CHASE said: The possibility of error in diagnosis of cholecystitis is not to be forgotten. Ad-

hesions of the gall bladder to contiguous structures may and does produce all the symptoms of a genuine cholecystitis. I saw such a case not long since.

In closing Dr. J. R. Taylor said:

Mr. President and Gentlemen, I am unable to say anything in regard to the effect of alcohol in this condition, because, while I would not under oath, state that the patients I have seen never used alcohol, still, as they were all women, and, in a way good church people and not liable to fall from the true and proper way of life, I do not believe they have used or abused it. I have not seen cases who have used alcohol.

So far as urotropin is concerned, I have never had any condition affecting the kidney beyond the increase in the amount of urine passed. No condition even simulating hemorrhage from the kidney has ever occurred.

It would be rather a difficult thing to state what was the difficulty in Dr. Polak's case, because after a man has gone into the gall bladder region once and interfered with the conditions there, he is very apt to have more or less adhesions to the surrounding parts and may cause adhesions to the duodenum or of the gall bladder to the transverse colon and would have a fistula formed with the appearance of bile where it is not primarily accustomed to be found.

The pressure exerted on the common duct or either of the others by a displaced kidney may prevent drainage. In a case last year, the whole difficulty was due to a displaced kidney and when that was rectified, the gall bladder took care of itself. I am sure that in women where often the right kidney is not in position, the beginning if not the entire cause of the trouble may have started in a displacement of the kidney and undue pressure as a result on the duct.

Lavage of the gall bladder. It is not original with me, but many years ago was first written of by Mayo Robson, and he is, I think, the only man who has written since on surgery of

the gall bladder who has continuously advocated washing out of the gall bladder. Other men who have done work in this region have rarely if ever used it.

Dr. W. B. Chase's question. With regard to the formation of adhesions about the gall bladder for many and varied reasons, and the exhibition of pain and other lesions which might be attributed to a diseased gall bladder, Morris, of New York, about two years ago wrote a paper. The topic was "Gall Spiders" and he took the ground that many of these cases are inflammation of the gall bladder in which there is no stone formation and not much thickened gelatinous mucus, but the trouble is due to adhesions binding it to other organs which interfere with its proper movements when the muscular action occurs which should empty it out into the duodenum. I have never seen any of these gall spiders as Morris calls them and am not in position to say anything about them. But I can say that adhesions so far as I can judge after watching cases, present symptoms which are very, very annoying. Personally I have suffered for five or six years from a condition in which Dr. Janeway, Sr., and Dr. Deaver say there are no gall stones present, but there is a chronic cystitis and within the last week with a most exasperating cough due to laryngitis, I believe if there are any adhesions, the jar caused by the excessive coughing is calculated to produce enormous amount of pain in excess of the pathological changes which seem to be present.

In regard to Dr. Polak's compliment as to my courage, I would say that if Dr. Polak had been here at the beginning, he would have understood my reference to Dr. Goodell that women all have some organs which are not in the pelvis. Regarding the use of Edebohls rubber cushion, I have found it very useful in stout patients with thick abdominal walls, but there is no advantage in using it with thin patients.

#### INJURY FROM A STEM PESSARY.

DR. JEWETT: I encountered a case a week ago illustrating the danger of stem pessaries. The woman for a long time had worn an instrument in the cervix to prevent conception. After leaving it out a few weeks a physician replaced it with some difficulty, doubtless inflicting some traumatism. The woman became septic, the temperature reaching 105 degrees. After a week it fell to 100 degrees. When the patient came under my care I found a mass on the left of the uterus, larger than the uterus, and firmly attached to it. This, at operation, proved to be an ovarian neoplasm. Exploration was made by posterior section but no pus was found. The patient went home in three or four days. The case is an illustration of the danger of cervical pessaries.

I operated to-day on a woman who had menstruated on October 8th, but began to bleed on the 16th and has been bleeding since. She had pains which were quite severe. The picture was not a typical one of ectopic gestation and yet I have met cases of tubal pregnancy in which the symptoms were no more typical. I found an ovarian cyst about as large as a medium sized orange filled with blood clots, some hard and some soft.

#### INSTRUMENTAL LACERATION OF THE UTERUS.

DR. J. C. MACVITT reports the following case:

I would like to report a case in which an accidental laceration of the cervix and body of the uterus took place while at the time exercising every care to prevent such. I desired to dilate the uterus of a girl 18 years of age, suffering from dysmenorrhœa. She suffered so much that she was compelled to give up her employment from two to three days during her menstrual periods. She was anesthetized. I first introduced a sound, then a Bosman's forceps, then a small dilator and made very gradual dilatation. I was then enabled to introduce the



Goodell dilator, and commenced my dilatation by separating the blades and coapting the handles with the screw, and, while doing this, I explained to several of the younger members of the staff present and nurses the necessity of exercising great care in dilating the average cervix and continued gradually turning the button, the resistance suddenly ceased and some spurting of blood occurred. I immediately withdrew the dilator, recognized at once what I had done, introduced my finger and found I had torn the lateral walls of the uterus up to the fundus and I felt that the tip of my finger was in the abdominal cavity. The query in my mind then was whether I had better do a laparotomy and anticipate any abdominal hemorrhage, but I waited for a time without noticing any peculiar pallor of the patient or difference in her pulse, so I packed with iodoform gauze and instructed the house surgeon to keep watch over her. I remained in the hospital about an hour for the purpose of observation. There was no trouble. The next morning the patient felt well. Two days later I repaired the tear. While in this case, the termination was fortunate, the query is whether I would have been justified in opening into the abdominal cavity.

*Question:* You repaired the surgical tear?

*Answer:* Yes, I repaired the surgical tear.

DR. V. L. ZIMMERMAN: In dilating these very small and narrow cervixes, there are a good many who adhere to the old Hanks dilators, or graduated sounds. I think they dilate a good deal more symmetrically and safely and are better for dysmenorrhea. A Goodell instrument dilates as a rule unevenly, and the dilatation is not so permanent.

DR. A. M. JUDD: I think we should all thank Dr. MacEvitt for reporting a case of this kind. I have ruptured the cervix once myself. I want to say that, since having done that, I have never depended upon the button for the dilatation. I depend upon it to hold the dilatation I have accomplished

with the hand. Then after waiting a short time, I unscrew the button and further dilate and then screw the button up again.

The question of whether Dr. MacEvitt did right in not doing a laparotomy, I think should be left to the individual judgment of the operator in the particular case. I have perforated the uterus at least six times and the first two times I did it I opened the abdomen. I was in fear something might have taken place which would produce complications. Since then I have not opened the abdomen for a perforation. If one is fully satisfied there is no intestine or omentum caught in a rupture of the uterus, I do not see why the abdomen should be opened.

#### INSTRUMENTAL LACERATION OF THE UTERUS DURING PREGNANCY.

DR. J. O. POLAK reported the following case: About seven years ago I saw in consultation with Dr. Pomeroy a doctor's sister for the hyperemesis of pregnancy. It finally became necessary to empty the uterus. We attempted to produce an abortion by packing the cervix. This failed, so, after three unsuccessful attempts at induction with packing, an instrumental dilatation was made. It was one of those cases of extreme ante-flexion of the cervix and uterine body, and in the course of dilatation, an accident very similar to the one reported by Dr. MacEvitt occurred. We found that not only had we ruptured the cervix but we had perforated the uterus posteriorly, so we could pass the finger into the peritoneal cavity. The case had to be cleared out, so we promptly emptied it out, with the curet and forceps and packed the uterine cavity. We then determined the amount of intra-abdominal bleeding by a very simple procedure, a cul-de-sac incision which showed that the hemorrhage was controlled. We then packed the pelvis with gauze, isolating the uterus, and she made an uninterrupted recovery. Where there is doubt in these aseptic cases as to whether we should

go into the abdomen or not, whether there is hemorrhage sufficient to warrant such a procedure, I think it can be determined by a cul-de-sac incision.

DR. CHAS. JEWETT: If a man of special skill is liable to meet with such an accident the experience is a warning to the general practitioner. With reference to the treatment in obstetrical ruptures, some of the German

surgeons advise operating in all, for the reason that we never can be sure that hemorrhage is not going on, or if stopped that it may not recur. Yet a certain proportion of cases, I am sure, can safely be trusted to drain-age.

Hank's dilator, several sizes of which must be introduced in succession, expose more to sepsis than does the branched steel dilator.

## BOOK REVIEWS.

**Text-book of Hygiene.** By GEORGE H. ROHE, M.D., and ALBERT ROBIN, M.D. Fourth edition. With many illustrations and valuable tables. Royal octavo, 570 pages. F. A. Davis Co., Philadelphia.

The fourth edition of Rohe's text-book of hygiene is practically a reproduction of the other three editions, except in many places new matter has been added. The chapter on quarantine has been revised by an expert. The part that treats of school hygiene shows evidences of having been rewritten.

Although the first edition of this work appeared twenty years ago, the successive editions have served to keep the work fairly up to date; and if any one wishes to consult a small, but concise work on the subject of hygiene, they will find that this well known book is still useful. R. B.

**Medical Diagnosis.** By CHARLES LYMAN GREENE, M.D., Professor of Medicine, University of Minnesota. Third edition, revised. P. Blakiston & Son, Philadelphia.

Each new edition of a work so favorably known, comes to us with a familiar and friendly look. When the book was first put out, one might well have doubted the wisdom of adding another volume to the many which had already so fully covered the subject, but it has well justified its existence.

The characteristics of the book are unchanged. No space has been given to uncertain findings, but all recognized and well grounded conclusions in the way of medical diagnosis are presented. Modern instrumental diagnoses are well demonstrated.

The discussion of the arterial and venous pulses is particularly clear and comprehensive.

The chapter on percussion has been amplified, one of the new points being auscultatory percussion of the apices of the lungs—Krönigs method. Also percussion of the spine, with the changes arising from adjacent consolidations and growths.

Tympanosomiasis and several other diseases uncommon with us, are included among the diagnoses.

In some places the author has succeeded in abbreviating the text without any sacrifice of material or clearness.

The type is in general the same, but the headings are in many instances larger. This, and the judicious paragraphing, make it an easy book of reference.

It is surprising how much is condensed in what appears like a students manual—and as such it is to be hoped it will be widely used; but it is a physicians book as well, and may more than passably fill the place of some of the larger works upon the same subject.

The publisher is to be congratulated upon the handsome appearance of the volume. G. R. H.



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## PRACTICAL HINTS ON JOINT TUBERCULOSIS.

By LEONARD W. ELY, M.D.

NEW YORK CITY.

Consulting Orthopedist to the Roosevelt Hospital, Surgeon to the Sea Breeze Hospital, etc.

CONCERNING many aspects of tuberculosis, as seen in the joints of the extremities, the widest differences of opinion exist, and, as in other subjects in medicine, where many opinions are entertained, here also it will be found that ignorance is the cause of the disagreement. We are ignorant of so many of the fundamental facts, that we are unable to reason to a logical conclusion. Most of the work hitherto has been done on the clinical side of the problem, but this method has limitations, and if practiced exclusively leads to empiricism. Some time ago we began to collect, from various sources, joints removed for tuberculosis. They had been removed at a number of different hospitals by about fifteen different men. We submitted these joints to a thorough examination both microscopic and macroscopic, and noted the results. We looked up the histories of the patients and made a synopsis of them, and then where possible we followed the patients after their discharge from the hospital, and observed their subsequent course. In this way we approached the problem from two different directions, and were enabled to compare the clinical

with the pathological findings. We have assembled more than sixty specimens and are slowly adding to the number, and the work has been interesting and instructive, though still incomplete.

In studying the pathology of these joints it is very difficult to avoid seeing them through others' eyes. One thinks one sees what one has been told one ought to see. Error is easily perpetuated if it has had good authority as a sponsor, and much pathology in the text-books and elsewhere is of the "canned" variety. Doubtless some of what follows here is open to suspicion. It is hard to avoid.

Two distinct views are entertained as to the origin of tuberculosis in joints, one that it is always primarily bony, and the other that it may be either bony or synovial. The former view has been held for a number of years almost exclusively in America, and is, in our opinion erroneous. From a study of our specimens we are led to the conclusion that the primary focus may be either in bone or in synovial membrane, and that the two, at least in adults, are about equally common. We realize that this is difficult to prove, but we rest our

contention not only on pathological findings, but also upon clinical experience, and in several other papers have given the reasons that led us to the conclusion. The theory that all joint tuberculosis is of bony origin is simple and attractive, but it does not rest on secure foundation. We shall assume that we have proved our case and go on to a description of the two forms. First let us take up those cases starting from a—

*Primary Bony Focus.*—The tubercle bacillus, probably carried thither by a white blood cell, starts in the marrow of the epiphysis a tuberculous inflammation, characterized here as elsewhere, by the formation of a tubercle with its round cell infiltration followed by epithelioid and later by giant cells, and with a tendency to spread (always in the marrow) and to break down in the centre and undergo necrosis. The trabeculæ, the bony tissue proper, are never involved directly in this, but are deprived of their nutrition, and die, sometimes in minute particles (bone sand), sometimes in large pieces (sequestra). Sometimes the disease, situated near the periosteum, breaks through this and never reaches the joint, but in the great majority of cases it seems to seek the joint as if guided by a distinct purpose. When it reaches the cartilage it does one of three things: First—It may cut off the nutrition of the cartilage at one spot and thus break into the joint through it. Second—It may spread out under the cartilage (mushroom, so to speak) and, destroying the nutrition of a large area, lift this off *en masse*. Third—It may work its way under the cartilage to its periphery and break through here. The cartilage, like the bony trabeculæ, is not sub-

ject to tuberculous invasion. It suffers only from the impairment of its nutrition. After the invasion of the joint one of several things may happen. The entire synovia may become involved, or a part of it only, or the synovia and the other bones of the articulation may suffer, or adhesions may form about the point of invasion (like those in the peritoneum, for instance), and the disease may thus be localized to a part of the joint and the rest may remain almost normal. Usually from the beginning of the disease, the process of repair has started and continues during the entire course. The joint is rarely overwhelmed, but areas of repair and extension are found side by side, in fact the whole process is to be considered as nature's reaction to the presence of the tubercle bacillus and of its toxins. Hence, a clipping taken at random from a tuberculous joint may or may not show signs of tuberculosis. Hence again the unreliability of this means of diagnosis. The repair is accomplished by the formation of fibrous tissue. In old joints we find fibrous adhesions binding the bones together, and often must hunt carefully for any focus of disease. The bone may undergo fatty osteomalacia and cut easily with the razor, again it may be quite hard.

Under the microscope we see the tuberculous granulation tissue invading the marrow of the bone, possibly with areas of necrosis, and the bony trabeculæ the seat of productive or rarefying osteitis. Sometimes the dead bone may be seen in the midst of the granulation tissue, sometimes lying dead surrounded by pus cells. The cartilage is sometimes roughened, sometimes fibrillated on its free surface.



*The Primary Synovial Type.*—Here the disease probably starts in the folds of the synovial membrane, especially in the recesses of the joint. It may remain more or less localized, it may spread throughout the membrane, or it may involve certain areas. Sometimes its only manifestations are in a few tabs hanging free in the joint. The villi are wont to hypertrophy, giving us the typical "villous arthritis"—no clinical entity, let it be remembered. The disease may remain restricted for years to the synovia and show no tendency to involve the bones, or it may spread to these at any time. The pathological changes in this type may be the same as those produced secondarily in the bony type, and after the disease has existed for some time, it is often impossible to say whence it sprang. Synovial disease is usually accompanied by a fluid exudate into the joint.

In all these specimens we see what we interpret as nature's effort to cure the disease by depriving the joint of motion. This done, the disease dies out: But it is never completely done in adults, and in them the healing is always by fibrous tissue which cannot effect a perfect ankylosis. Some focus of disease almost always persists, ready at any moment to cause a flare up, if *motion* tears the adhesions apart.

If tuberculous joint disease is characterized by the production of much fibrous tissue, it may run a slow dry course, otherwise areas of necrotic tissue may liquefy and form a "cold abscess" in the joint or outside it, which may later become infected and form a very troublesome complication.

Occasionally in children healing is brought about by bony union, and in

them also cure may take place with a fair amount of function or even with an almost normal joint or with one quite normal. But none of these results is frequent in adults. We know less (of our own knowledge) of the pathology of children's joints than of that of adults, for fortunately they are rarely resected nowadays, and our specimens are few. In adults almost always, and in children usually, a *restitutio ad integrum* means a mistaken diagnosis.

From a careful study of our specimens it appears that in about 35 per cent. the diagnosis of the surgeon who removed them was wrong. The whole subject of diagnosis appears involved and often ludicrous. Even the pathological findings of two laboratories may differ. We have adopted the plan recently of noting the various diagnoses made clinically before operation, those made by different men at operation and those made in the laboratory or laboratories. We have concluded that no man is able to make an invariably correct diagnosis of tuberculous joint disease, and do not feel ashamed to include ourselves in this statement. To claim infallibility is to confess ignorance. We can understand now the statistics of brilliant cures occasionally published by some surgeon with a peculiar form of treatment, and as far as we are concerned will accept no statements in this line unless they are backed up by proof.

There are several means of diagnosis at our disposal: clinical examination, the X-ray, the tuberculin reaction, the animal test, and a laboratory examination of a clipping from the tissues of the joint, and no joint should be opened unless we have used our best efforts to make a correct

diagnosis. After the joint has been opened we should be guided by what we find, and if we are wise we will spare no pains to perfect ourselves in interpreting what we see. It is quite evident that we all make mistakes, but this will not excuse us from trying to make as few mistakes as possible. In the light of our researches the statements made in many textbooks and in many monographs seem, to put it mildly, somewhat overdrawn.

*Differential Diagnosis.*—We have nothing original to add to this branch of the subject, and shall content ourselves with the enumeration of the following conditions from which tuberculous joint disease must be differentiated; Bone syphilis, trauma (including sprain and fracture), rheumatism, rheumatoid arthritis, osteoarthritis, "infectious arthritis" (pneumococcus, streptococcus, gonococcus, etc.), Charcot's joint, gout, sarcoma, hemophiliac joints, scurvy and hysteria. If one will adhere to the rule of removing as much as possible of the patient's clothes, one will avoid many a pitfall. A correct diagnosis is often the result of taking pains.

*Prognosis.*—The prognosis as to life is good, and better in children than in adults, though in adults also the danger has either been exaggerated, or else the results are better with modern methods of treatment. Infected abscesses make the prognosis worse, and it must be remembered that we are usually dealing with a local manifestation of a chronic disease, and are always liable to witness the involvement of other organs. As to function we refer to what we have already said.

*Treatment.*—This may be divided into constitutional and local, and the

latter again into conservative and radical. We shall see to it of course that no measures are neglected which will establish the general health of the patient. Fresh air and good food are important here as in other forms of the disease. Of the different forms of local treatment we shall choose those which interfere least with the normal life. Enlarged tonsils, adenoids, etc., will receive attention. Whether we believe in sea air or not we shall nevertheless insist upon an abundance of fresh air during the entire twenty-four hours.

*Local Treatment.*—Conservative. The two main points to which all our efforts will be directed are to put the joint at rest and to avoid secondary infection by pus-producing germs. We put the joint at rest by immobilizing it, and thereby adopt essentially nature's method of cure. We avoid secondary infection, because abscesses once open and infected may discharge for years and be the ultimate cause of death in many cases. The means that different men adopt to obtain these ends may vary greatly, but the principles of procedure are more or less the same. The most thorough way to put a joint at rest is by traction in bed, combined with some sort of fixation apparatus, but as this treatment prolonged would interfere with the nutrition of most patients, and to shrinking and atrophy of the affected part, we reserve it for special indications, and instead turn to some other means that will enable us to get our patients on their feet. Among some good authorities the principle of traction in disease of the hip and of the knee is still advocated, but with these exceptions, and among most surgeons with no exceptions



whatever, the keynote of conservative ambulatory treatment is fixation. How this fixation is to be secured is largely a matter of personal preference. We rid our minds of any idea of a mysterious healing power residing in any form of appliance whatever, or of any hidden purpose of the man who applies it. Any brace or rigid dressing used in tuberculous disease is of benefit according as it immobilizes the joint, and any one who applies it must understand just exactly what he wishes to accomplish, and must see that the appliance fits the purpose.

Personally we prefer plaster-of-Paris dressings to any other form of appliance, reserving braces for special cases, such as those with abscess. The plaster must be applied thick enough to hold, but not too thick for comfort. It must fit accurately and must be padded over the bony prominences.

Cold abscesses, when they form and approach the surface, should be aspirated, repeatedly if necessary, and their cavities should be injected with one of the iodoform mixtures, though possibly simple aspiration is just as efficacious. No pains should be spared to prevent their spontaneous rupture and their subsequent infection with germs of suppuration.

Conservative treatment is especially adapted to children. It should be followed in them until all hope of saving a limb is gone, and then only should give place to an amputation. We merely state an opinion which is shared by many others when we say that resections are out of place in children. Their recuperative powers are remarkable, and justify a hope of ultimate success until their constitutional involvement forces us to abandon conservative treatment. In adults

conservative treatment may be tried for a short time, especially in the milder synovial forms of the disease, but, as a rule, the best result for which we can hope is a stiff joint, or in some regions an unsteady one, and inasmuch as we can obtain this usually in a few months by radical treatment, whereas we will need as many years for conservative measures, unless a distinct improvement is noticed in six months resort should be had to the knife.

In disease of the spine, conservative treatment is all we can offer to young or old.

The operation of curetting a tuberculous joint is still widely practiced. It is useless or worse and should be abandoned.

*Radical Treatment.*—In children the usual radical treatment is amputation, which should only be done as a life saving measure. In adults we usually *resect*.

Hitherto the general idea that has been followed in resecting a tuberculous joint has been to eradicate every particle of tuberculous tissue, "to go wide of the disease," so to speak, but reasoning from what we have seen in our specimens, we gather that the best way to heal an adult tuberculous joint is to deprive it of motion and to convert it into a synostosis. In those joints where this can be done, the knee especially, the results of operation are almost uniformly good by any method of resection. We hold that no one can be sure of eradicating every bit of tuberculous tissue, but that what really is done is a destruction of the joint and hence a healing of the disease. In other words, no joint, no tuberculosis. Following out this line of reasoning we have

devised an operation for resection of the knee that aims only to secure ankylosis and leaves most of the diseased tissue behind as of little importance after the ankylosis has been secured. The incision is made straight across the patella and this is sawn through and the fragments turned up and down. The lateral aponeurosis is divided but not the lateral nor crucial ligaments. The ends of the femur are sawn off and the cartilages of the tibia are removed with a chisel. The patella may be dissected out or it may be left in. The joint is sewn up, a rubber tissue drain, if used, is left in for only twenty-four hours, and the whole limb is immobilized by plaster-of-Paris. The operation is much

simpler than the customary resection, it sacrifices much less bone, it is quicker and the ends of the bone are far more easily retained in place. We advocate its trial in suitable cases.

In conclusion let it be said that no pains should be spared to make an early correct diagnosis of suspected joint tuberculosis, and that no joint should be opened until every effort has been made to find out the nature of the disease. We should seize every opportunity to study the appearance of these joints after they have been opened, both on the operating table and in the laboratory. In this way we shall learn to interpret what we see when we open them.

201 West 55th Street.

## THE TREATMENT OF DIPHTHERIA, SCARLET FEVER, AND MEASLES.\*

DETAILING THE METHODS ADOPTED AND CARRIED OUT AT THE WILLARD PARKER HOSPITAL FOR CONTAGIOUS DISEASES OF NEW YORK CITY.

By S. R. LEAHY, M.D.

Physician to Kings Park State Hospital.

THIS hospital is the hospital maintained by the Board of Health, New York City, for the reception of contagious diseases occurring in the city.

### VACCINATION.

Upon admission, all cases are vaccinated, using the vaccine which is prepared at the hospital and put up in small vials containing about 1 cubic centimeter of vaccine. This constitutes about enough for fifty vaccinations. The mode of procedure is extremely simple; the surface to be vaccinated, either on the arm or

leg, as the case may be, is first cleansed with sterile cotton and 95 per cent. alcohol, then taking an ordinary sewing needle from the usual package in which they are sold on the market, the skin is scratched gently so that a slight oozing of serum without the admixture of blood, results. The area scarified is about the size of that of a match head, as the serum used is very active; and no larger area is required. Then taking an ordinary toothpick and dipping it into the vaccine the scarified surface is rubbed thoroughly with it, the surface is then allowed to dry, but no dressing of any kind is

\* Read before the Suffolk County Medical Society, April, 1910.



placed upon it. The vaccinations are, as a rule, very successful, and there are very few cases of infection.

#### THE TREATMENT OF DIPHTHERIA.

The throat and nose are examined under a strong light, either artificial or direct sunlight and the extent of the membrane and inflammation determined. The cases have usually been cultured before admission, but all cases must be cultured on admission into the hospital. The throat only, is cultured in most cases but the nose also, in cases having a nasal discharge. These cultures are then sent to the laboratory and report as to whether negative or positive is received at the end of twelve hours.

All cases upon admission receive doses of antitoxin according to the following condition:

(1) Culture and mild cases, with membrane limited to the tonsils—3,000 units.

(2) Cases in which membrane is not limited to the tonsils but moderate in extent—5,000 units.

(3) Complicated cases, tonsillar and any of the following:

- a. Nasal.
- b. Laryngeal.
- c. Glandular.
- d. Septic—

10,000 units.

(4) Septic with a, b, or c—20,000 units and if symptoms have not improved at the end of twelve hours, this dose is repeated.

The serum now being used is much more concentrated than that used formerly and the doses do not require as large quantities of antitoxin. The point of election for giv-

ing the antitoxin is in the axilla about the level of the eighth rib or slightly posterior to the posterior axillary fold. But few rashes are now seen as a result of the antitoxin.

For further treatment the throat is irrigated, in all tonsillar pharyngeal and nasal cases, with normal saline solution, at a temperature ranging from 110 to 120 degrees Fahrenheit, every two hours at first, later as the inflammation subsides, every four hours. About a quart of saline is used for each irrigation. To accomplish the irrigations, the patient, who in most cases is a child, is so wrapped in a sheet and this sheet so pinned that the hands and feet are held firmly and struggling prevented. The patient is then placed on a table on its side with the head so placed that the mouth hangs over the edge of the table. In this way the mouth and throat can be irrigated freely and the returning saline flows into a basin placed at the side of the table. In irrigating the nose the upper nostril is always irrigated with the saline, returning through the lower nostril. To irrigate the other nostril the patient is then turned on the other side and the upper nostril again irrigated. In adults the irrigation can be carried out in a sitting posture.

In cases having enlargement of the sub-maxillary and cervical glands, an ice collar is placed about the neck. In cases where there is very marked enlargement of the glands, a 50 per cent. ichthyol ointment is used in addition. Where the inflammation goes on to pus formation, incision with drainage is the indicated treatment.

Where there is much prostration with a feeble, rapid pulse, stimula-

tion in the form of whiskey and strychnine is indicated. All cases receive a preliminary dose of calomel followed in five hours by either saline or castor oil. The diet is necessarily a fluid one until the acute symptoms have subsided.

In laryngeal cases the question of intubation arises. These cases are often difficult to diagnose, as in many of them no membrane is visible in the pharynx or on the tonsils, and it is only by means of a culture that the diagnosis is made. When the respirations become rapid and shallow with sinking in of the intercostal spaces and the patient is rapidly becoming cyanosed and prostrated, intubation or tracheotomy must be performed. The former operation is the one of choice to-day as the mortality resulting is very much less than that resulting from tracheotomy. I shall not describe the operation of intubation with which you are all familiar. The physicians in the hospital are never allowed to either intubate or extubate, until they become thoroughly familiar with the operation through practice on the cadaver. Intubation should be carefully considered and never performed without well marked symptoms as it may be followed by pneumonia, which is fatal in many cases, or the patient may become what is known as a "chronic tube." These patients are forced to remain in the hospital for years, wearing a tube, and most of them eventually die of pneumonia. In some cases a temporary intubation may be performed, the tube being introduced and allowed to remain but a short time when it is withdrawn. If the finger, preferably the little finger, be wrapped

with gauze and the tip be introduced into the glottis, very often large pieces of membrane can be removed and the embarrassed respiration relieved.

*Complications.*—The most common complication is paralysis resulting from a toxic neuritis. This may come as early as the seventh day or as late as the second or third week, the most common part affected is the soft palate, producing nasal speech and allowing regurgitation of fluids through the nose. This paralysis generally clears up in a short time without any special treatment. The most serious of these paralyzes is that affecting the heart due to a neuritis of the cardiac nerve producing a tachycardia or a bradycardia, but often the first evidence is a sudden cessation of the heart's action and this tragic termination may take place during convalescence. It is needless to say that should there be any indication of this cardiac neuritis the patient should be immediately placed in bed, kept as quiet as possible, and an ice bag placed over the heart.

After the membrane has disappeared and the inflammation has subsided and the temperature again becomes normal, cultures are again taken. Before the patient can be discharged two cultures, showing no growth of the diphtheria bacillus, must be obtained two days in succession. Cultures showing no growth are rejected.

#### SCARLET FEVER.

Upon admission all cases receive a dose of antitoxen, 1,000 units as an immunizing dose. The reason for this is seen when it is



remembered that most cases of scarlet fever have some membrane in the pharynx or on the tonsils. It is impossible to distinguish this membrane in most cases from that occurring in diphtheria without a culture, and it is not an uncommon occurrence to see the two diseases together in the one person. As in diphtheria all throats are cultured and the nose also if there be a discharge. If the throat be very much inflamed, or membrane present, the throat is irrigated every two hours as in the treatment of diphtheria with normal saline at the same temperatures. As the inflammation subsides and the membrane disappears the irrigations are continued every four hours. The nose also is irrigated if there be much discharge from it.

All patients are placed on a strictly milk diet upon admission until the temperature and acute symptoms have subsided or until the urine has cleared up, if albumin has been present. The urine is examined daily for the first week and every other day for the second week. Thereafter it is examined twice a week until the patient is discharged.

The patients receive a warm bath every morning and although plenty of fresh air is advisable, care is taken to protect them from draughts. When desquamation begins care is taken to prevent the spreading of the desquamated skin. The desquamated skin, however, is not regarded as being the only source of contagion in this disease. The mouth and nasal discharges are regarded as being highly contagious in the early stages of the disease and special care is taken of these discharges. As soon as desquama-

tion is well established and following a warm bath every morning, the hands and feet from which the desquamated skin comes off slowly and disappears last are rubbed thoroughly with a cake of pumice stone, in order to remove the adherent desquamating skin.

For the disease itself very little medication is used. When the heart's action becomes weak or the patient becomes prostrated, stimulating and supporting treatment is indicated. Very often cases are encountered which are septic in character and which are rapidly fatal in spite of treatment. Nothing in the way of specific medication is attempted in the treatment of this disease.

*Complications.*—The most frequent complication of scarlet fever is acute parenchymatous nephritis. In the early stage of this complication fluids are limited, later when the inflammation begins to subside an abundance of fluids is permitted. Where there is much edema, free catharsis is instituted with high, hot rectal irrigations of normal saline given every four hours. In connection with this, hot packs or hot air baths to promote free perspiration are given. When uremic convulsions supervene, normal saline, in the form of hypodermoclysis or in the form of intravenous injections, is given. All these measures tend to relieve the kidneys and at the same time dilute and get rid of the toxic material present in the body.

Another frequent complication is otitis media. The ears are examined two or three times a week and watched carefully. If the patient

runs a temperature after the original fever has subsided it is generally due to an inflammation of the middle ear. As soon as the redness of the drum becomes well marked, paracentesis is practiced. The ears are then irrigated every four hours with hot normal saline solution. The patients are kept in bed a week after the temperature has become normal and are then allowed up provided there is no nephritis or other complication. The cases are isolated thirty-five days and at the end of this time are viewed by an inspector, who determines whether or not desquamation is complete. If desquamation be not complete the patient must remain in the hospital until it is complete.

#### MEASLES.

There is nothing special in the treatment of measles as carried out at the hospital. Patients receive a warm bath every morning, care is taken to prevent the dissemination of the nasal and mouth discharges and also of the desquamating skin. The discharges and desquamating skin are both regarded as being a source of contagion. The pumice stone is used on the hands and feet as in scarlet fever. Cases of measles are isolated for twenty-one days at the end of which time all cases are seen by an inspector, who de-

cides whether desquamation is complete and whether they are fit for discharge.

*Complications.* — Broncho-pneumonia is the worst and most fatal complication. The only treatment of value is the fresh air treatment, together with supporting and stimulating treatment, when indicated.

*Otitis Media.*—The ears are examined as in scarlet fever and the same treatment carried out.

The physicians who are on the different services are not allowed to visit or attend cases on any other service. The same rules hold for the nurses. Visitors are allowed to the hospital twice a week, but are compelled to wear a cap and gown when in the ward, as are also the physicians and nurses.

One may see almost any combination of the contagious diseases in this hospital, measles and diphtheria or scarlet fever and diphtheria or all three in one case. Such cases are often brought in on the liners coming from Europe, where all the contagious cases are placed in one room.

The wards of the hospital and the ambulances are fumigated with a 40 per cent. solution of formalin heated over an alcohol stove, four ounces being allowed to every 1,000 cubic feet.



# AFFECTIONS OF THE EXTERNAL AUDITORY MEATUS\*

By JOHN E. SHEPPARD, M. D.

THE material from which this paper has been prepared, and I might say parenthetically that it has been prepared *by request*, was culled from the histories of 2,000 private cases, it having appeared that thus a good line could be secured on the frequency and importance of such conditions.

From this I find that of all cases coming to us, 17.5 per cent. refer to the external ear. Nine per cent., or a little more than half, are cases in which *cerumen* has become pathological, meaning thereby that the wax has become so impacted as to produce symptoms referable to the ear; of these wax cases 54.7 per cent. occurred in males, 45.3 per cent. in females; it occurred in both ears in 46 patients, or just about half, in the right ear alone 18 times, left ear alone 26 times.

Of the *Otitis Externa Circumscripta*, or *Furuncle* patients there were 36, or 3.6 per cent. of all cases, of which 28.7 per cent. occurred in males, 71.3 per cent. in females, an evidence to my mind that the hair-pin is more dangerous than the toothpick. Both ears were involved in six cases, the right ear in 11, the left ear in 19.

Thirty-one patients, or 3.1 per cent., were affected with *eczema*, of which 43.5 per cent. were in males, 56.5 per cent. in females. Both ears were involved in 24 cases, the right ear alone in four, and the left ear alone in three.

*Myringitis Chronica*, properly a

sub-group of *eczema*, furnished five cases, or 0.5 per cent. of all cases, and occurred twice in males, three times in females, twice in both ears, twice in the right ear alone, once in the left ear alone. There was one case of *aspergillus* among 2,000 patients, a ratio of 0.05 per cent., and occurred in a young female.

There were four cases of *foreign body* in the ear, 0.4 per cent. of all cases, three in males, one in females, and twice in the right ear, twice in the left ear.

As to the age when these conditions occurred, there were in the wax cases—one under 10 years of age, five between 11 and 20, 66 between 20 and 50, nine between 51 and 60, four between 61 and 70, and five over 70.

In the *furuncle* cases—two occurred under 10, 26 between 20 and 40, two between 41 and 50, five between 51 and 60, and one over 70.

In the *eczema* cases there were—24 between 20 and 50, three between 51 and 60, three between 61 and 70, and one over 70.

I have grouped these cases together because they in my judgment may be classed together as due to improper hygiene, and instead of 90 per cent., as suggested in the abstract, really constitute over 95 per cent. of all the conditions of the external ear.

Perhaps some one may say that foreign bodies do not belong in this category, to which I would reply that of the four cases, per thousand, plugs of cotton tight against the membrane, and masses of vaseline more or less blocking the canal,

\* Read at the Annual Meeting of the American Laryngological, Rhinological, and Otological Society, held at Washington, D. C., April 28-30, 1910.

were the foreign bodies found in this series of cases.

In spite of the fact that the authorities speak of "insufficient" and "excessive secretion of cerumen," it has become more and more my belief that in virtually all cases cerumen becomes impacted sufficiently to produce symptoms because of the old and mistaken idea that wax is dirt, and the consequent undue effort to get rid of it. I must admit that I have two or three patients who come back to me from year to year with their ears more or less filled with wax, and this in spite of the most careful directions to them about how to cleanse their ears, which directions they claim to have followed, but I still believe that, could I see them in their daily ablutions, I could pick some flaw in their methods which would account for the recurrent accumulations.

My instructions to patients are in brief to use nothing more than a damp wash-cloth over the end of their largest finger. In the same way I believe the whole group of eczema cases, myringitis, etc., to be due in very nearly, if not quite, all cases to too much soap and water in the ear, which is insufficiently dried out. This may sound like a somewhat radical statement to many of you, especially to those who believe in the uric acid or rheumatic foundation for these conditions, but my purpose is to present to you the results of my own personal observations. My *preventive* treatment for these conditions is the same exactly as that for impaction of cerumen, viz., a damp wash-cloth, with but little or no soap on it, over the end of the middle finger. It will of course go without saying that, after the condition has been acquired and

patients come to us for relief, curative measures must be instituted, in addition to the above suggested means of prevention.

It will readily be granted that a furuncular infection arises almost exclusively from efforts to get rid of wax, or to relieve the itching of eczema, hence, if these efforts can be controlled, boils will practically cease to occur in the ear.

This brings me to the less usual conditions of the external auditory canal.

Among these I would mention exostosis and hyperostosis, of which I found four or five cases in each of the 1,000 histories involved in this discussion. They are at times single, at times multiple, most often situated at the extremities of the so-called tympanic ring, but in none of these cases of mine were they producing symptoms sufficient to require operative interference for their relief. There was one case of what seemed a true osteoma, which I reported some years ago, I think to the New York Otological Society. I remember but one other case in my experience, so that this one case among 2,000 patients, or 0.05 per cent., would seem to represent an unduly large proportion for a condition which is certainly rare.

Possibly the question would properly arise whether we should call it an osteoma of the external auditory canal, or of the mastoid, but the symptoms and appearances certainly refer to the former. The patient, Miss P., aged 30, had suffered for three months from pain and a "blowing sound" (pulsating tinnitus?) in the right ear, with discharge for the past month. The canal, a short way in, was entirely blocked by a hard, bony growth past which it was im-



possible to get the smallest probe. Operation was immediately undertaken, an incision posterior to the auricle was made, and the periosteum elevated, under which was found an outgrowth of bone from the anterior surface of the mastoid. A slight tap with the chisel loosened a bony growth which appeared to be resting in a depression in, but without bony attachment to the mastoid. Some of the surrounding bone was chiselled away to give extra room in the canal, from which much debris was syringed, and the posterior wound promptly healed.

*Sebaceous Cysts in the Canal* are of interest principally because they are often mistaken for furuncle, and when so mistaken usually sooner or later, recur, because the treatment-indication is to curette and destroy the secreting internal surface of the cyst.

*Keratosis Obturans, Laminated Epithelial Plug, or Otitis Externa Desquamativa*, is likely to be found once or twice in every 1,000 cases. It is almost always mistaken at first for impacted cerumen, usually requires much patience and dexterity with syringe, forceps, curette, etc., for its removal, and such cases should always be seen at three or four month intervals for at least two years to guard against recurrence, which is frequent.

Trauma of canal of varied kind and extent will be met with from time to time but permits of no generalization. I would simply speak of tubercular caries of the canal, of the very painful herpes of the canal, and of tinea circinata involving the canal, as among the rarer conditions met with.

*Otitis Externa Hemorrhagica* is occasionally seen, but is usually an accompaniment of a severe middle ear inflammation, most often the grippal form.

Occlusion of the canal, both congenital and acquired, are met with sufficiently often to perhaps require mention. My experience in operating for the congenital form has not been such as to lead me to recommend it, while the acquired form does not, as a rule, present insurmountable difficulties.

I wish now to direct your attention to the great importance, and the sometimes great difficulty, of a differentiation between the mastoid perititis due to an underlying mastoiditis and that due to an overlying furunculosis. The protruded auricle in the two conditions oftentimes presents an identical appearance. The tenderness in the two conditions is sometimes so nearly alike as to be misleading, as is also the appearance of the sagged or bulged posterior-superior canal wall. The history, the appearance of the tympanic membrane, and the interference with hearing, or the lack of it, will sometimes have to be the guiding factors in determining the real character of the trouble.

Finally, I wish to speak of epithelioma of the canal as a condition worthy of our serious consideration. In the 2,000 patients, I have seen three such ears, two of them in one person. The first case was that of a retired sea captain, Mr. T., aged 70, who first visited me May 18, 1896, and gave the following history:

For two or three years has had frequently recurring, at the entrance to the canal, and on its floor, a feeling of soreness, with darting pain

and itching lasting two or three days, then better a few days, and again recurring. There was seen a crack in the space between the tragus and the anti-tragus, covered with a crust, and on the floor of the meatus at the entrance, an infiltrated, red, eczematous-looking patch nearly a half inch in diameter. A diagnosis was made of either epithelioma or eczema, with the chances strongly favoring the former. I tried, and watched, the effect of local measures for a short time, then stated positively that it was epithelioma, and asked for additional counsel before resorting to radical measures.

The patient disappeared, and was not seen again until July 15, 1909, when he reported having undergone some form of paste treatment at the hands of an out-of-town cancer-doctor, and that he had been entirely well after that until within the past two months, during which he has been suffering intense pain in the ear. I found the entrance to the canal was narrowed by cicatricial tissue to barely a pin-point opening. I advised immediate enlargement of this opening for drainage and investigation, which by the way, he did not permit until twelve days later, when the whole surface of the canal walls, the tympanic membrane, and the tympanic cavity region seemed to be involved. I gave a bad prognosis, and have not seen him since.

Cases II. and III.—Miss V. O., aged 38, was first seen March 18, 1903, when she gave the following history:

Some deafness in the left ear a year ago, with slight watery discharge last summer, and increased deafness during the past autumn,

followed by a period of improvement, until during the past week, when there has been deafness, tinnitus, and slight dull pain; itching had persisted more or less throughout the year. I found the canal blocked with secretion, after removing this with a syringe, the walls at the inner end of the canal were seen to be much inflamed, and "a suspicious-looking spot on the floor of the canal" about half-way in the ear. A diagnosis of "eczema of the canal" was put down followed by a question mark. By March 31st, I felt that the ulceration on the floor of the canal was so suggestive of epithelioma that I asked her to see Dr. Mathewson, whose patient she had been before he gave up his ear work. He felt unwilling to make a positive diagnosis, but made some suggestions as to treatment, which were carried out, without, however, any improvement, and on April 24th, I referred her to Dr. Winfield for treatment with the X-ray. He concurred in the diagnosis, and immediately began treatment, which was carried on, with intermissions during the summer months of 1903 and 1904, until December 28, 1904, when the surface of the canal seemed to be smoothly healed throughout.

As showing the depth to which the disease had extended, I would call attention to the fact that during June and July, 1903, and again during the following midwinter small superficial scales of bone were removed from the ulcerated area.

In March, 1906, the left canal is noted as being still smoothly healed, but in the right ear was found an appearance very similar to what had formerly existed in the left ear, and accompanied by similar symp-



toms, and treatment with the X-ray was promptly begun. One month later, in April, ulcerated areas existed in both canals, and both were treated with the ray, under which the left ear again promptly healed, the right one improving very slowly. By the middle of July of the same year, both canals seemed healed, although small thin crusts marked the areas of former trouble. These were removed, and from that time to the present, now nearly four years, the ears have caused no further trouble. During all this time there was a small growth of the same character on the forehead at the junction with the hair-line, which only partially yielded to the X-ray treatment.

While, in the early stages of epithelioma, it may be extremely diffi-

cult, or even impossible, to positively differentiate the condition from eczema, yet I believe that there will usually be found something in the history to arouse our suspicion, which a brief course of treatment will suffice to confirm or dispel, and so soon as the conclusion is arrived at that we are dealing with epithelioma, my above-related experience would naturally impel me to a recommendation of the X-ray treatment as more than likely to result in cure. In case of failure with this form of treatment, the experience of my dermatological friends would lead me to speak highly of the use of the curette and acid nitrate of mercury, before resorting to the knife.

130 Montague Street.

## QUININE AND UREA HYDROCHLORIDE AS A LOCAL ANESTHETIC.

By HENRY F. GRAHAM, M. D.

IN the Journal of the American Medical Association of October 23, 1909, Arthur Hertzler, Roger B. Brewster and Ford B. Rogers, of Kansas City, Mo., reported on this drug as a local anesthetic with the following observations and conclusions:

1. Any operation ordinarily done under cocaine can be done with quinine and urea hydrochloride.

2. The duration of anesthesia with  $\frac{1}{2}$  per cent. to 1 per cent. solutions was four or five days.

3. Solutions of this strength (1 per cent.) cause some induration.

4. Union may be a little delayed by a fibrinous exudate when the stronger solutions, 1 per cent. or over, are used.

5. In operations about the anus and in tonsillectomies, it is the anesthetic

of choice, as it exerts a hemostatic effect and the pain of after dressings is avoided.

*Its advantages over cocaine are:*

1. Its absolute safety.
2. The duration of anesthesia.
3. Its hemostatic effect.

This report was so favorable to its use that I determined to try quinine and urea as a local anesthetic.

### REPORT OF CASES.

1. *Fistula in ano.*—Loss of sensation complete. Although the patient was very neurotic, he lay perfectly still and did not know when the sphincter was divided. Three days later sensation was still absent and there was no pain when the wound was packed. Healing was rapid. A 1 per cent. solution was used.

2. *Double ingrowing toe nail.*—One per cent. solution. Perfect anesthesia. Good healing.

3. *Intravenous anesthesia for an infected foot.*—Failure was complete. Probably this was a bad case for intravenous anesthesia and the solution used was not very efficacious in this way.

4. *Empyema thoracis with rib resection.*—Two ounces of a 1 per cent. solution used. The anesthesia was almost absolute after infiltrating around the nerve posteriorly. There was slight pain on stripping up the periosteum. Primary union of the sutured portion of the wound. Quinine and urea seems to be an efficient and safe anesthetic for this work.

5. *Plastic operation on face above the eye.*—The anesthesia was good where the solution was properly injected. More of the solution is necessary than when cocaine is used. A considerable amount should be used, as it is safe.

6. *Insertion of trocars.*—Perfect anesthesia.

7. *Finger amputation.*—One per cent. solution. Good anesthesia. The solution prepared ran out and the operation was finished with a stock solution of cocaine. Some slough resulted where the cocaine had been used. There was primary union where the quinine and urea had been used.

8. *Circumcision for lymphatic occlusion of prepuce.*—Virtually elephantiasis. In this case there was some gangrene of the skin. This is the only case where a slough or gangrene seemed to result from the quinine and urea. Possibly in this case the blood supply was so poor that any infiltration even with salt solution would have caused gangrene.

9. *Amputation of a finger.*—Intravenous anesthesia with a  $\frac{3}{4}$  per cent. solution. Fair anesthesia. Good healing.

10. *Removal of a big wart.*—Slight pain on injection of first few drops of solution. Sutures were removed too soon. The man leaned over and split open his wound, which was on the back, between the scapulæ.

11. *Abscess of forehead.*—Absolute anesthesia. No slough.

12. *Infected finger.*—Moderate pain on injection. No slough. Complete anesthesia.

13. *Infected hand.*—Some complaint on injection. Patient very neurotic. After the injection the anesthesia was absolute.

14. *Amputation of finger.*—Good anesthesia. Eucaine gtt. iii or iv used, followed by a large amount of quinine and urea. Primary union.

15. *Submaxillary adenitis.*—Moderate induration for three days. Absolute anesthesia.

16. *Laceration of second, third, fourth and fifth fingers.*—Compound fracture of fourth. Injection of two fingers for suturing, etc. Good anesthesia. Primary union.

17. *Intravenous anesthesia for excision of a fibroma of a tendon.*

Because of imperfect anesthesia with a  $\frac{3}{4}$  per cent. solution in the previous case, a  $1\frac{1}{2}$  per cent. solution was used in this case, probably about three ounces. The anesthesia was fair but not perfect. After the operation was finished the tourniquet was loosened, the veins compressed above and three ounces allowed to bleed from the canula before tying off and sewing up. In spite of this precaution the patient suffered from cinchonism, vomited, had ringing in the ears, etc. There was also some swelling of the arm, chiefly of the upper arm, probably due mostly to the tourniquet which was applied too tightly, as some bruising and tenderness remained for several days in the spot where the tourniquet had been applied. This case was a distinct failure and I shall never use quinine and urea intravenously again.

#### REMARKS.

A 1 per cent. solution has usually been used, made from the two-grain tablets of P. D. & Co. The solution has been boiled before using.

#### CONCLUSIONS.

1. Quinine and urea hydrochloride seems to be a perfectly safe local anesthetic, which causes only slight local irritation. It does not cause tissue destruction, and, if it interferes with healing at all, does so only to a slight degree.



2. It is especially valuable in all local operations where a large amount of anesthetic will be necessary, as fistula in ano, hemorrhoids, rib resection for empyema, etc.

3. In many cases there is a slight momentary pain as the first few drops of the solution are injected.

This disappears almost instantly and no further sensation is experienced.

4. The anesthesia is very lasting. Suturing up the wound never hurts as it often does when cocaine has been used.

5. It should never be used intravenously.

## A CASE OF AINHUM.

By JOHN H. LONG, M. D.

THE occurrence of ainhum in this country is so rare that the report of a case should be given special prominence.

### HISTORY OF THE CASE.

The patient was a colored woman, 39 years of age, born in Virginia and a resident of Brooklyn for eighteen years. A cook by occupation.

Four years ago a soft corn appeared on either side of the plantar surface of the right little toe; these caused some pain, various corn salves were used without effect. Patient was disabled for ten weeks during the summer of 1908 and eight weeks during the winter of 1908-09. She noticed that the root of her toe was becoming smaller as though a string were tied around it.

*Examination.* — Apparently full-blooded negro, well nourished and in good general health. The right little toe was somewhat swollen and edematous. There was a deep transverse fold on the plantar surface at about the middle of the proximal phalanx. This was so deep that it divided the bone, almost amputating the toe; there was a strip of normal skin on the dorsum; this covered the pedicle which connected the swollen distal portion of

the toe to the foot. This pedicle was flexible, and manipulation of the distal portion of the toe gave pain. There was no muscular control. Sensation in the toe was limited to the pedicle. The furrow was lined with thick, callous skin. There were no areas of ulceration in the furrow or on the toe. The portion of the toe distal to the furrow was swollen to such an extent that it was spherical in shape, the nail was present and normal, the skin was warm and normal looking.

The pedicle was infiltrated with cocaine and cut by one of my assistants in the Brooklyn Hospital Dispensary; there was moderate hemorrhage, no bone was encountered. A small portion of the base of the proximal phalanx could be palpated in the stump. This has since become smaller. The stump healed slowly.

Dr. Walter D. McGraw, in the chapter on "Tropical Medicine" in *Keen's Surgery*, writes concerning ainhum as follows:

The name "ainhum" is of African derivation, meaning "to saw," and is given to a curious disease affecting colored races, more particularly the black. It is characterized by a slow amputation of one or more digits, gen-

erally a symmetric separation of the little toes, although other toes or even fingers may be affected. It is prevalent in Africa, in India, and in Brazil. In the United States over a dozen cases are on record, all in negro patients. The disease begins with a fissure at the root of the toe, on the plantar surface. Usually the little toes of both feet are affected simultaneously, but one foot may remain sound or subsequently become diseased. The fissure deepens and extends entirely around the digit, without pain, and with very little, if any ulceration and no bleeding. The toe, which is being very slowly amputated, enlarges and becomes almost spherical, and finally after several years drops off. The constriction is generally at the first interphalangeal joint, but may be around the first phalanx.

After separation, a small ulcer is left, which usually heals without further trouble. The disease is seldom attended with annoying symptoms, and gives, indeed so little inconvenience to the patients that they may not seek treatment until the last stages. Occasionally the constricting grooves may be ulcerating or painful, but this is generally due to injury when the toe has nearly separated.

Ainhum is most common in adult males, but the cause of the complaint is entirely obscure. Zambaco believes it to be a very much attenuated nerve leprosy, but the disease, as in Brazil, is common in regions where leprosy is not seen. It is not due, as has been asserted, to the wearing of rings on the toes after the custom of savages, because it occurs among people where such a custom is unknown (American negroes, for instance, do not wear toe rings) and where shoes are worn. The disease has certainly all the marks of a tropho-neurosis, resembling in a measure Raynaud's disease and nerve leprosy, but it is quite different from both in many symptoms.

According to Unna, ainhum is a sort of linear scleroderma, in which the epidermis hardens and shrinks, compressing the papillary layer and causing pressure necrosis. Obliter-

ating arteritis follows, with degeneration of all the tissues of the toe, including the bone, which is the seat of rarefying osteitis. There is no treatment that will preserve the toe after separation has progressed to any extent, but in the unlikely event of making a diagnosis of the disease in its earlier stage, an incision of the constriction, with curetment of hardened tissue, might possibly stop further progress. The partly separated toes should be removed whenever in the least troublesome.

In 1898, Dr. Bass, of Nashville, found records of one case of ainhum in Canada and fourteen in the United States; of these one was in Pennsylvania, the rest in the Southern States. Besides this list, which he gives in the November, 1898, number of the *Nashville Journal of Medicine and Surgery*, I have been able to find nine cases, all negroes in the Southern States. In four of these cases one little toe only was affected, in four both little toes at different times, and in one, both little toes at the same time.

In the *Lancet*, Vol. II, 1886, Mr. C. H. Eyles reports in detail the result of the microscopical examination of two cases of ainhum. A very brief summary of his findings is as follows: Thickening of epidermal band, result of irritation in natural fold, atrophy of glands, osteitis and chronic inflammation resulting in fibrosis and amputation, as the result of the constriction and pressure on trophic nerves.

May 18, 1910. The patient returned to the hospital complaining of tenderness of the stump. This was incised and the atrophied remains of the proximal phalanx removed. This was about one-fourth of an inch long, as thick as a toothpick and very sharp. The sharp point was involved in the scar. The groove on the other little toe had perceptibly deepened.



## LONG ISLAND MEDICAL JOURNAL

A Forum for the Discussion of all Topics Involving the Medical Profession and especially that of Long Island.

EDITOR-IN-CHIEF

PAUL MONROE PILCHER, A.M., M.D.

ASSOCIATE EDITOR

JAMES MCFARLANE WINFIELD, M.D.

EDITORIAL OFFICE:

145 GATES AVENUE, BROOKLYN, N. Y.

Further Information on advertising page 3

JUNE, 1910.

### ASSOCIATED PHYSICIANS OF LONG ISLAND.

#### ANNOUNCEMENT OF THE JUNE MEETING.

*To the Members of the Associated Physicians of Long Island:*

THE mid-summer meeting of the Association will be held on June 25th. Only an outline sketch of the place and the preparations which are being made can be given at this writing. Dr. William H. Ross of Brentwood, conceived the scheme and has spent much time and thought in perfecting the arrangements. The details are now being worked out by Dr. Ross and the members of the Entertainment Committee, one member of that committee, Dr. Dudley, having made several visits to the place with Dr. Ross and Dr. Turrell. The plan is to leave Jamaica at about 11 o'clock and alight from the train at Smithtown. Automobiles will be in waiting to convey the members a half mile or so to the old Smithtown landing on the Nissequogue River. At that point the party will board private launches and on a high tide float down a beautiful stream for

about three miles to a gentleman's unused estate on the west bank of the river, the use of which has been offered to the Association through Dr. Ross for the day. A light lunch will be served immediately on landing. Pavilion tents will be erected on the grounds for the business and scientific meeting and for the dinner later.

The meeting will be as short as it is possible, with the business on hand, to make it. Dr. Harvey W. Wiley, Chief Chemist of the Department of Agriculture in Washington, will speak on "Preventive Medicine from a Chemical Standpoint," in the Scientific Session. The Scientific Session will not occupy more than an hour. At 4.30 a Rhode Island clam bake will be prepared on the beach, the results of which, with other things, will be served in a pavilion dining tent.

On an incoming tide in the late afternoon the return trip will be made up the river to Smithtown and from thence by train to Jamaica and the various destinations. It is believed that, weather favoring, the carrying out of this plan will make not only a unique experience in the life of the Association, but that it will prove to be a very enjoyable and profitable day's outing.

As all supplies must be transported for a considerable distance from a base, it is manifest that the Entertainment Committee must know at least a week beforehand exactly how many are to be provided for. Late comers arriving without giving notice could be accommodated only by reducing the allowance provided for each of the others. We therefore request that after the regu-

lar notices are sent out in June the responses shall be prompt and definite.

We have every reason to believe that the meeting will be largely attended and that the occasion will be a very pleasing one.

JAMES COLE HANCOCK, M.D.,  
Secretary.

THOMAS R. FRENCH, M.D.,  
President.

### AN INSPIRING CAREER.

**F**IFTY years of continuous service in one hospital is a record which is almost unparalleled in the history of this country. Half a century devoted to unselfish, determined, and oftentimes discouraging efforts for the advancement and elevation of the medical profession, is crowned by the tributes of affection and esteem which are showered upon him by his associates in celebrating his eightieth birthday.

Dr. Abraham Jacobi—revolutionist, both in politics and medicine, brought with him to this country the same devotions to liberty and democracy which landed him in a German prison. Here he found freedom of thought and congenial companions, which allowed his life to broaden out to fulfill its greatest promise.

The history of his life and struggles is simply but beautifully told in an editorial written by Dr. Alger non T. Bristow, in the May number of the *New York State Journal of Medicine*. Those who have not read it should do so, and perhaps they will understand some of the qualities which are necessary to make a great physician.

The tribute of Dr. Bristow to his friend concludes with the following passage:

"This half century and more he has sojourned with us, guide, philosopher and friend, to all who need him. Now the sky glows golden in the west and the evening shades draw nigh. The shadows lengthen on the mountains but beyond the mountain tops and the rolling tide lie the everlasting sunshine and summer skies. Not yet, oh not yet shall the Lady of the Lake ground the prow of her shallop on the sands for our Launcelot! We need his counsel, the inspiration of his presence and example yet, this many a year, but when at last he sets sail for the Islands of the Blest, may the ebbing tide bear him gently into the sunset as with shielded brow we watch him fading into the haze of immortality."

### THE GLORIOUS FOURTH.

**T**HE total number of those more or less severely injured on the 4th of July, 1909, exceeded 5,000; of this number about 200 were killed as a direct result of wounds, while numerous others were maimed for life. No one will ever know how many developed tetanus, to die later in agony.

What is the need of this terrible sacrifice to patriotism? Have we not made sufficient noise to satisfy all the requirements?

If the United States Government should demand of every State that on the 4th of July five children should be killed and a hundred more be mutilated for life, as a fitting sacrifice to celebrate our National independence, the result would be another civil war—and yet the government of each State annually makes such a sacrifice. By their failure to enact some law prohibiting the use of explosives and fire-arms on the 4th of July they sign the death warrant of these children



and condemn countless others to imperfect lives.

And what is the remedy? All that is necessary is for the city to pass an ordinance prohibiting the sale and use of fireworks without a special permit. A simple law restricting the sale of any form of firearm or combustible fireworks would be equally helpful.

What is the duty of the physician when a patient is presented suffering from an extensive wound produced by a premature explosion, etc., where some portion of the explosive is driven into the tissues? Thoroughly cleanse the wound, using soap and hot water, and plenty of it; swab the wound with carbolic acid or tincture of iodine; and give an injection of tetanus antitoxin! If these instructions were carried out in every case of severe "4th of July injury," tetanus from this source would disappear.

*It should be the duty of every health officer of this State to be provided with a supply of tetanus antitoxin, and to insist upon its use in appropriate cases.*

If the injection cannot be given on the day of the injury, give it on the day following.

Ten cubic centimeters of antitoxin given within twenty-four hours of the injury is better than a thousand given after the symptoms of tetanus have developed.

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#### THE DEATH OF DR. EUGENE G. HODENPYL.

THE death of Dr. Eugene G. Hodenpyl came as a great shock to many of his friends in Brooklyn. He died in New York on May 5, 1910, after a short illness,

from pneumonia. He started his career as a pathologist in one of our Brooklyn hospitals, and soon received an appointment on the teaching staff of the College of Physicians and Surgeons, of New York City. A year ago he retired from his teaching career to become pathologist of the Roosevelt Hospital. For the past four years he had been especially interested in the study of the etiology and treatment of cancer, and in a recent number of the *Medical Record* he published a preliminary report on a new method of treatment of this disease. His method consists of injecting into the body of a patient suffering from cancer, ascitic fluid obtained from a recovered case of carcinoma. The fluid seems to have a remarkable selective necrotizing effect upon carcinoma cells.

The untimely death of Doctor Hodenpyl has robbed us of an important worker in the field of research, and although he did not live to see his hopes realized, still his name will not be forgotten when the ultimate victory over cancer is recorded.

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#### THE DEATH OF DR. F. TILDEN BROWN.

FOR nearly a year Dr. Brown suffered from mental depression and other nervous manifestations of overwork. Recently he went to Bethel, Me., to seek rest, having with him a male attendant. On the morning of May 7th, he eluded his companion and shot himself in the head, killing himself instantly.

Dr. Brown was well known throughout Long Island, both socially and professionally. He was

fifty-five years of age, and was graduated from the College of Physicians and Surgeons, New York, in 1880. At the time of his death he was Consulting Surgeon to the Nassau and Presbyterian Hospitals, and Attending Surgeon to Bellevue Hospital.

He became especially interested in the surgery of the bladder and kidney, and was our foremost

worker in developing the American cystoscope, both of the direct and indirect type. His was the first double direct catheterizing cystoscope for synchronous catheterism of both ureters.

His sad death came as a great shock to those who knew him and our sympathy is extended to his family and his immediate associates, who will feel his loss the most.

## MEDICAL NEWS.

Edited by JAMES M. WINFIELD, M.D.

THE SUFFOLK COUNTY MEDICAL SOCIETY is composed of the practising physicians of Suffolk County, without regard to their sectarian affiliations, and over 85 per cent. of the doctors avail themselves of its advantages. The meetings are noted for the high order of their scientific papers, and the best experts of the city are always glad to speak to an audience of Suffolk County doctors. Very little is said about the personal or selfish interests of the doctors themselves, but a great deal is said about preventing disease. The society recognizes the fact that the doctor of the future will be employed more to prevent disease than to cure it, and his reputation will depend more upon the absence of sickness in his town than upon the number of cures which he shall accomplish.

NEW CONEY ISLAND HOSPITAL.—The fine new Coney Island Hospital building was dedicated May 18th. The contractor, Richard Hennington, formally turned over the keys, which were accepted in behalf of the city by Michael J. Drummond, Commissioner of Charities.

The opening prayer was invoked by the Rev. William Morrison, of All Saints Church, at Seventh street and Seventh avenue. One of the features of the dedication was the unveiling of a tablet on the outside of the building, which is the first to bear the

name of Mayor Gaynor since he assumed office. Miss Rose M. Drummond, daughter of the commissioner, pulled the cord which exposed the tablet to view.

The benediction was pronounced by the Right Rev. Mgr. D. W. McCarthy, of St. Agnes Church. The principal address was by Thomas L. Fogarty, M. D., Second Deputy Commissioner of Charities.

A NEW HOSPITAL FOR LONG ISLAND CITY.—Since the effort to reopen the old Astoria Hospital was unsuccessful, a number of the leading physicians and clergymen of Long Island City have commenced an active campaign in the effort to establish a new hospital in that part of Queens Borough.

The members of the various committees who have the enterprise in charge are Drs. McFarlane, Platt, Frey, Anderson, Fickelf, Menken, Finck, Marshall and Boettinger.

COLORED HOSPITAL.—The bill incorporating the Provident Hospital of Brooklyn, known as the Colored Hospital, which was introduced by Senator Reuben L. Gledhill and Assemblyman George W. Brown, has been advanced to the order of third reading.

HEMPSTEAD HOSPITAL.—The new hospital which was erected by Mrs. O. H. P. Belmont at Hempstead, Long Island, was opened April 23d. The



hospital management is unique; the Board of Managers being all women.

Mrs. Belmont is the President of the Hospital Association and Dr. Louis N. Lanehart the Secretary.

**NATIONAL DEPARTMENT OF HEALTH.**—There seems to be little likelihood that Congress will take any action at the present session on the Owen bill to create an additional executive department to be known as the Department of Health. It has been claimed by opponents to the bill that the purpose is to form a "doctors trust" and that it was opposed to the interests of homeopathic and osteopathic physicians and all classes except those represented by the American Medical Association. These charges were disputed by supporters of the bill.

**KINGS COUNTY HOMEOPATHIC MEDICAL SOCIETY.**—At the four hundred and thirty-ninth regular meeting of the Homeopathic Medical Society of the County of Kings, the Legislative Committee, which is composed of Dr. H. D. Schenck, chairman; Dr. O. S. Ritch and Dr. E. R. Fiske, presented the following resolution, which was adopted:

*Resolved,* That the Homeopathic Medical Society of the County of Kings records its opposition to the bill before the Legislature permitting unvaccinated children in the public schools as a step backward in the administration of the public health laws regarding contagious and communicable diseases.

**HEALTH RULES OF PATCHOGUE.**—Anyone allowing flies or mosquitoes to breed on their premises violates sections 12 and 13 of the rules and regulations of the Board of Health of the village of Patchogue which reads as follows:

12. *Mosquitoes*—Water shall not be allowed to stand in any depression of the ground or in any pail, can, barrel or other receptacle in which mosquitoes may breed unless the water is kept screened against the entrance of

mosquitoes or covered with a film of kerosene or other oil. Any violation of the provisions of this ordinance shall subject the offending party to a penalty of five dollars.

13. *Houseflies*—During the months from May to September, inclusive, no manure, garbage heap, privy vault or other breeding place for flies shall be allowed to exist, or accumulate for more than one week. All barnyards, pigpens, privy vaults and other receptacles for manure shall be kept dry and in a cleanly state at all times. Any violation of the provisions of this ordinance shall subject the offending party to a penalty of five dollars.

**GIFTS TO COLUMBIA UNIVERSITY.**—It was announced at the last meeting of the trustees of Columbia University that gifts amounting to more than \$60,000 had been received recently. Among these gifts was one of \$18,000 from the children of Dr. Abraham DuBois, who was graduated from the College of Physicians and Surgeons in 1835, to be used to establish a research fellowship in the medical department in memory of their father.

**SALE OF COCAIN RESTRICTED.**—Governor Hughes has signed the bill providing that persons who sell or furnish cocaine or eucain as permitted by law on a physician's prescription, shall, at the time of sale give to the purchaser a certificate stating the seller's name and address, the name and address of the physician on whose prescription the drug was furnished, and the date of sale and the amount sold.

**ERECT A SMALL SHAFT TO DR. CRAWFORD W. LONG.**—Although there were six or more claimants to the honor of having discovered anesthesia, the people of Georgia decided some years ago to place the statue of Dr. Crawford W. Long in the Hall of Fame as the real discoverer, and the other day they erected a monument in his honor at Jefferson, Ga., near the spot where he performed his first operation.

**INEBRIATE BILL SIGNED BY MAYOR.**—Mayor Gaynor has approved the bill passed by the Legislature authorizing the Board of Estimate to provide for the retention and treatment of inebriates in this city. In his memorandum forwarded to the Governor with his acceptance of the bill the Mayor points out that the measure is purely permissive, and lays emphasis on the possible cost of carrying out its provisions. He seems to have been deeply impressed by the number of letters written to him favoring the plan.

**CONGRESS OF PHYSICIANS AND SURGEONS.**—At the eighth triennial session of the Congress of American Physicians and Surgeons, the following physicians from Long Island read papers: Drs. John E. Sheppard, W. C. Braislin, R. L. Dickinson, James Watt, John O. Polak, Samuel Sherwell and Walter Truslow.

**PHYSICIANS' OFFICE BUILDING.**—The following physicians have recently taken offices at the Physicians' Office Building at No. 67 Hanson Place, their occupancy of the same beginning on the following dates: On May 1st, Dr. Robert O. Brockway; on May 14th, Dr. Christian C. A. Lange; on June 1st, Dr. Charles Eastmond. Dr. William H. Davis has also increased his quarters on the third floor so that four floors are occupied wholly or in part.

**PHYSICIANS IN CHARGE OF THE ARMY.**—The two highest positions in the army are held by physicians. Our honorary member General Leonard Wood is Chief-of-Staff of the United States Army, and Major-General F. C. Ainsworth is ranking Major-General. General Wood was graduated in medicine from Harvard in 1884 and General Ainsworth from the medical department of the New York University in 1874.

**DR. ABRAHAM JACOBI.**—On the evening of May 6th the Medical Society of the State of New York gave a reception at the New York Academy of Medicine in honor of Dr. Jacobi's

eightieth birthday. The many admirers and friends of Dr. Jacobi from all over the country took this occasion to congratulate him on being eighty years young.

One of the interesting features of the evening was the unveiling of a bronze portrait relief of Dr. Jacobi by his granddaughter, Rose McAneny.

Dr. Joseph D. Bryant presided. Addresses were made by Dr. Charles Jewett, President of the Medical Society of the State of New York, and Dr. Jacobi.

**DR. ELIAS H. BARTLEY.**—At the National Pharmaceutical Convention held in Washington, May 11-12, Dr. E. H. Bartley of Brooklyn was elected a member of the committee on the revision of the United States Pharmacopoea. Dr. Bartley would be glad to receive any suggestions or advice from any member of the Associated Physicians of Long Island.

**DR. NELSON H. HENRY**, who was recently appointed Surveyor of the Port of New York, is a graduate of the College of Physicians and Surgeons, was for a number of years a practitioner of medicine in New York City. He served as surgeon through the Spanish war and for a time was stationed at Camp Black. For the last seven years he has been Adjutant General of the N. G. N. Y.

**DR. ROLAND HAZEN**, for three years connected with the Ross Health Resort, and in charge of the surgical work there, has purchased the Paris Hospital, at Paris, Ill., and has recently gone there to take charge. Dr. Hazen did some very skillful work while with Dr. Ross at Brentwood and the many friends he made while there will wish him all success in his new field. Dr. Hazen will conduct his hospital as a surgical one exclusively.

**DR. R. L. WOODARD**, a graduate of the Kings County Hospital, of last January, has accepted the position as assistant at the Ross Health Resort in Brentwood, L. I.



DR. HARVEY W. WILEY.—In recognition of his work for the higher standardization of food and drugs Dr. Harvey W. Wiley, Chief of the Bureau of Chemistry of the Department of Agriculture, was elected President of the United States Pharmaceutical Convention, to serve a term of ten years.

Dr. Wiley's election was not without a fight, however, and several attempts to make his choice unanimous were frustrated consistently by one faction of the convention, which was suspected by the majority of being aggrieved by some of Wiley's food and drug decisions.

DR. AND MRS. LOUIS HENRY WARNER celebrated their fifteenth wedding anniversary on May 11th.

DINNER TO DR. MCNISH.—At the home of F. C. Baker, 480 East Nineteenth Street, Tuesday night, May 3d, a dinner was given in honor of Dr. McNish, president of the British Homeopathic Medical Society, by Dr. H. H. Baker, formerly of Chicago. Dr. McNish spent about three months in this country taking a post-graduate course in homeopathy, mostly in Chicago.

DR. AND MRS. WILLIAM DILLON of 176 North Sixth Street, Brooklyn, sailed on the Anchor Line steamship Caledonia on May 5th for an extended sojourn abroad.

DR. J. LESLIE KEEP DINED.—As a tribute to their friend and fellow member Dr. J. Leslie Keep, in recognition of his completion of fifty years' service as a practicing physician, the members of the Shelter Island Yacht Club recently gave the doctor a complimentary dinner in honor of the event, surprised him before the large assemblage of diners and their friends by presenting him with a huge silver loving cup.

DR. DRURY'S DINNER.—At his home, 235 Washington Avenue, Brooklyn, several nights ago, Dr. George Drury assembled over twenty of his closest friends, in the main members of the Union League Club of Brooklyn, to

help him celebrate his fifty-third birthday. The chef of the Union League served the banquet and unending good fellowship marked its progress. The guests presented the doctor with a very handsome glass punch bowl and glasses.

#### REMOVALS.

DR. ALFRED POTTER announces the removal of his office to No. 491 Eighth Street, below Eighth Avenue, Brooklyn.

DR. J. L. CARNEY has removed to 250 Hawthorne Street.

DR. M. KAHN has removed to 1105 Halsey Street, between Evergreen and Central Avenues. Telephone, 2845 Bushwick.

DR. WILLIAM E. MCCOLLOM announces the removal of his office to 1174 Dean Street. Telephone 7090 Bedford.

DR. HARRY MEYERSBURG has removed to 481 Knickerbocker Avenue. Telephone 1213 Bushwick.

DR. JOHN M. TAYLOR announces the removal of his office and residence to 214 Eighth Avenue.

DR. WALTER H. WHITON announces his removal to 1011 East Fifteenth Street, at Avenue J. Telephone 604 Flatbush.

DR. HERBERT F. WILLIAMS has removed to 416 Grand Avenue, between Putnam and Gates Avenues. Telephone 1566 Prospect.

#### MARRIAGES.

FREDERIC LESLIE MCCREA, M.D., of Port Jefferson, to Miss Ruth Anna Barnum, of Brooklyn, April 30th.

CONSTANT ENGELBERT SCHRADIEGK, M.D., to Annie E. Bursch, both of Brooklyn, April 26th.

#### CORRECTION.

Since the issue of the May number of the JOURNAL the News Editor has been overwhelmed with inquiries regarding the obituary notice of Dr. George A. Evans.

The JOURNAL is happy to state that the Dr. Evans referred to was not the well known George Alfred Evans, of

909 Bedford Avenue, Brooklyn, but a Dr. Evans, of 470 Fiftieth Street, Bay Ridge.

The Historical Committee was not responsible for that notice, although the coincidence was remarkable, the name and ages were identical, both were graduates of Bellevue, but the deceased Dr. Evans did not belong to the County Society nor was he a member of the Associated Physicians of Long Island.

In the words of the late Mark Twain, we can say, that the report of the death of Dr. George Alfred Evans, of 909 Bedford Avenue, was "grossly exaggerated."

### NECROLOGY.

Compiled by WILLIAM SCHROEDER, SR., M.D., Chairman of the Historical Committee.

DR. EUGENE HODENPYL died at his residence, 37 East Sixty-third Street, Manhattan, May 3, 1910. Dr. Hodenpyl practiced medicine for a number of years in Brooklyn. He was the son of Anton J. Hodenpyl; his family is one of the oldest Dutch families on Long Island.

In 1894 Dr. Hodenpyl married the

daughter of Joseph Fahys, of Brooklyn and Sag Harbor.

HORATIUS LATTO, M.D.—Born in New York City in 1860 and died in Brooklyn, N. Y., April 18, 1910. Graduated in medicine from the Long Island College Hospital, 1890. He practiced medicine in this city during the twenty years of his professional life.

His father Thomas C. Latto, who was born in Scotland in 1818 and died in Brooklyn, N. Y., May 12, 1894, was a poet and writer.

Dr. Latto was connected with The Medical Society, County of Kings, in 1906-07.

TUNIS H. FISHER, M.D.—Was born in Harrisburg, Pa., in 1853, and died in Brooklyn, N. Y., May 7, 1910. He received the degree of M. D. from the University of the City of New York in 1889. He practiced his profession in this city during the greater part of his professional life. He leaves a widow, a son and a daughter.

For a number of years Dr. Fisher was an active member of Day Star Lodge, F. & A. M., and was its Master in 1906.

## TRANSACTIONS OF THE BROOKLYN SURGICAL SOCIETY

*Meeting held January 6, 1910.*

The meeting was called to order at 8.45 P. M., January 6, 1910, by President J. Richard Kevin, M.D., at the building of the Kings County Medical Society.

### GUN SHOT WOUND OF THE SPINAL COLUMN WITH INJURY TO THE SPINAL CORD.

DR. JAMES C. KENNEDY reported the following case: A young man was disputing with the patient's father, the patient interfered, when the young man drew a pistol and pointed

it at the breast of his defenceless victim, who, however, quickly turned his side, the bullet striking him in the region of the left shoulder, thence passing through his left lung, burying itself in his spinal column about the fifth dorsal vertebra. The range as far as could be learned was about eight feet, the bullet a thirty-two calibre.

On entrance to St. Catharine's Hospital, patient was conscious but suffering from shock. Examination



showed that the lower extremities were paralyzed, with both rectal and bladder control gone, giving the impression that the cord was divided.

The patient passed through a traumatic pneumonia which seemed to lessen his chances of recovery exceedingly. The patient recovered almost entirely from the paralysis and from all other symptoms with the exception of a slight spastic paresis of the right leg. An X-ray picture taken at the time showed a bullet in the body of the fifth dorsal vertebra. The presumption is, however, that the paralysis shown in the case was due to hemorrhage about or into the cord rather than to direct injury, from the fact that gradual improvement went on until the patient reached the state in which we now find him, namely, with a slight spasticity of the right leg. He was in the hospital from November 7, 1908, to January 1, 1909.

A recent X-ray photograph taken by Dr. Williams, locates the bullet in the sixth dorsal vertebra.

#### GUN SHOT WOUND OF THE SKULL.

DR. KENNEDY presented a patient, Edward B., 15 years of age, a native of the United States, and a resident of Brooklyn, N. Y. On November 19, 1907, while standing on a street corner, he was approached by two companions, one of whom engaged him in conversation. While thus engaged, the other boy, at close range, shot him, probably accidentally. The bullet entered the head through the left external auditory meatus. The patient states that at the moment he was shot, he felt dizzy and placed a hand on either side of his head and then fell unconscious to

the ground. Eye-witnesses state that a large amount of blood escaped from the ear.

On admission to St. Catharine's Hospital, the patient was in profound shock, with considerable bleeding from the left ear. He remained unconscious for twelve hours, his death was expected at any moment. On November 20th, the gauze drain was removed from the ear, when at least two drachms of macerated brain tissue oozed out. On November 21st, the patient showed the following cranial nerve involvement which is perhaps the most interesting part of the case:

Fifth Nerve.—Anesthesia of the left side of the face, loss of taste and unilateral furrowing of the tongue.

Sixth Nerve.—Paralysis of the left external rectus muscle, with inability to rotate left eye outward.

Seventh Nerve.—Complete facial paralysis on the left side.

Eighth Nerve.—Complete deafness on the left side and tendency when walking to deviate to left side.

For these neurological observations, I am indebted to Dr. McEntee, the Neurologist of St. Catharine's Hospital.

Patient's condition remained unchanged until about the 29th of November, ten days after admission, when the temperature rose to  $101.5^{\circ}$ . The following day it went up to  $104^{\circ}$ ; from this date it gradually decreased varying from  $102^{\circ}$  to a fraction above normal, until January 12th, when it became normal and remained so. His chart was discontinued on January 22, 1908. He left the hospital soon afterwards in good physical condition, with the exception of the damage which remains

to the seventh and eighth cranial nerves as shown by Bell's palsy on the left side of the face with deafness of the left ear.

Recently on request, Dr. John E. Sheppard kindly consented to examine the ear with the following result: Atresia of the ear from cicatrization, admitting only the smallest probe. He states that if a bullet entered the external auditory meatus he believes that it is in the tympanic cavity, from the fact that the probe strikes something which is not normal to that locality.

That the cranial nerves were damaged at their exit from the skull rather than at their origin deeper down.

Dr. John G. Williams, who has charge of the X-ray work at St. Mary's Hospital, located the bullet last evening, a photograph of which I now present. It shows the bullet in the boy's neck anteriorly on a line with cricoid cartilage.

Several X-ray pictures previously taken failed to show the presence of a foreign body in the skull.

The boy is now engaged in his usual work in a factory, and, because of this, together with his excellent physical condition, his parents, at the present time refuse to consider any operative procedure.

Dr. Pearce Bailey, in his excellent book on accident and injury in their relations to diseases of the nervous system, states that the most that the surgeon can do in these difficult cases is to ascertain as nearly as possible the severity of the accident, and, after severe accidents, to withhold an opinion until sufficient time has elapsed to render the occurrence of further symptoms improbable.

That any head injury is liable to be complicated by intra-cranial inflammation. He also states that there is no domain in medicine or surgery in which more caution in diagnosis and prognosis is required than head injuries.

These facts are borne out in this case, because the clinical symptoms without the presence of a bullet would be hard to explain. The freak which the bullet played in the patient's head will be unexplained during life. That it can be removed goes without saying.

*Discussion by* DR. McENTEE. The interesting thing about the first case was the very definite picture of cranial nerve involvement which presented itself. It was perfectly miraculous how a bullet could go in through the external meatus and damage all these cranial nerves in such close relation to the internal jugular vein and carotid artery and other important structures and finally lodge in the neck and recovery follow with only seventh nerve paralysis. As this took place several years ago, the outlook for recovery is nil. There is no hope for nerve regeneration. The thing of interest is the possibility of helping the facial paralysis by a facio-hypoglossal anastomosis. Dr. Taylor, at the City Hospital on the island, has done eight cases of this with very good results. This is the only possibility of curing the facial palsy.

The case of injury of the spinal cord showed a transverse myelitis at the level of the fifth dorsal vertebra. The bullet is still there and I do not think it is doing much harm.



**EPITHELIOMA OF FOREHEAD.**

DR. JOHN H. LONG presented the following case history.

Mrs. M. B., age about 60; March 15th. Wart on the forehead since childhood; this began to increase in size one year ago. She has been treated by an excellent physician with ointments and caustics, without benefit.

*Examination.*—March 15, 1909. There is a typical superficial epitheliomatous ulcer one-half by three-fourths inch in diameter on the right temporal region. This was confined to the thickness of the skin.

*Treatment.*—On April 9th, after twelve X-ray treatments, I noted on the history that the ulcer was one-half the original size. No burn had then been produced. On June 15th, after fifteen more treatments, a moderately severe dermatitis was produced. Meanwhile the ulcer improved slightly. Treatment was stopped, and when the dermatitis cleared up the ulcer had completely healed. It has remained well from June 28th to the present time. The scar is hardly perceptible.

**EPITHELIOMA OF THE FACE.**

DR. JOHN H. LONG presented a patient with the following history:

Mrs. C. M., age 66. First seen March 12, 1909, gives the following history: A small wart-like growth appeared on right side of forehead one and one-half years ago. This was picked and irritated and increased in size. It was treated by caustics for two months and temporarily healed. For the last five months has been treated at an institution in Jamaica, L. I. A few days ago the patient visited a well-

known surgeon in Brooklyn, who considered the growth inoperable. Two days ago she visited Dr. Jennings; he agreed that it was inoperable and referred her for X-ray treatment.

*Examination.*—An ulcerating growth with hard edges about three-fourths by one inch in diameter, involving a portion of the right eyebrow and adherent to the bone. There was considerable edema of the upper eyelid. Just above this was a small scar, apparently the result of the original growth. The patient complained of very severe pain all over the right side of the head and was unable to sleep because of it.

*Treatment.*—From March 12th to June 4th, she received 30 X-ray treatments. The exposures were at first four minutes, and in seven treatments increased to ten minutes, which has been the length of exposure ever since. The distance of the tube was gradually lessened from eighteen inches to four inches, until a marked dermatitis and conjunctivitis developed. Improvement was slight and variable until the dermatitis subsided, when the growth was appreciably smaller and more movable.

Dr. Jennings saw her at this time and decided that the growth was operable, and therefore operated early in June. On July 2d the patient returned for further X-ray treatment, there was a clean granulating ulcer. This was rayed thirty times between July 2d and October 13th. During this time dermatitis was produced twice. The ulcer had nearly healed but there was a nodule on the inner side of the scar which was increasing in size.

A second operation was per-

formed by Dr. Jennings on October 18th. The nodule and periosteum were removed by the cautery. Since November 10th the patient has had eleven treatments. The ulcer is healing gradually and so far has shown no signs of recurrence.

The pain was somewhat relieved after a few treatments, and is now entirely absent. The X-ray rendered the case operable, and the operations, together with the treatments, have added greatly to the patient's comfort, and caused at least a temporary disappearance of the growth, whether she is permanently cured or not.

#### CASE OF AINHUM.

DR. JOHN H. LONG presented a case of ainhum, for report of which see page 205.

DR. JOHN E. JENNINGS said in discussing the cases: It may be of interest to state that the second case was subjected twice under anesthesia to vigorous use of the actual cautery during the intervals of the X-ray treatment. At that time a space one and one-quarter inches in diameter was reamed out down to the bone and the second time a cavity about three-quarters of an inch across and three-quarters of an inch deep was cauterized down to the bone with the cautery at dull red heat.

*Discussion by* DR. WM. B. BRINSMADE.—These three cases are very interesting and I believe this report should not go by without a word of congratulation for the very excellent work which Dr. Jennings has given us evidence of to-night.

#### QUININE AND UREA HYDRO-CHLORIDE AS A LOCAL ANESTHETIC.

DR. HENRY GRAHAM read a paper with the above title for which see page 203.

DR. BUIST asked Dr. H. F. Graham if quinine and urea hydrochloride solution applied locally to mucous membranes produces anesthesia.

DR. H. F. GRAHAM replied to Dr. George L. Buist that in the original article the claim was made that 10 per cent. or 20 per cent. solution of quinine and urea hydrochloride applied locally gave anesthesia almost as good as cocaine. He had not tried it that way himself at all.

#### CRYPTORCHID.

##### PRESENTATION OF PATIENT.

DR. RUSSELL S. FOWLER presented a patient who was operated on November 1st for cryptorchid. Only one side was operated on at that time as the patient had also a strangulated inguinal hernia of the same side. The operation for the cryptorchid was incidental to the hernia operation. The Harn method was used, which consists in freeing the cord from all peritoneal attachments, and then without attempting to make any covering for the testicle, brings the testicle out through a slit in the lowest part of the scrotum and suture it outside. Eight or ten days later the sutures are removed and the testicle is allowed to slip back. The idea is that the elastic pull of the testicle will lengthen the cord so the testicle will subsequently lie in the scrotum. It is claimed by Bevan, whose operation is familiar, that not covering the testicle with peritoneum is apt to result in adhesion to the scrotum. In a personal series of fifteen cases operated on by the Harn method, no atrophy or adhesion has occurred. On the side operated in the patient shown, the testicle had never come down into the scrotum and was



found at the level of the internal ring.

The testicle is covered while kept outside the scrotum with Woelfler's solution, 10 per cent. iodoform compound in tincture of benzoin.

DR. J. R. KEVIN asked if he had performed the same operation on infants.

Dr. Fowler replied that his youngest case was about four years old. The child who was to have also been exhibited to-night was eleven years old. The time of choice is about ten years.

#### EXCISION OF WRIST-JOINT.

DR. J. S. WIGHT presented a patient who was shown to the Society in 1906, which was five months after the original excision of the wrist, in order to show the result of that excision nearly four years ago. There are adhesions in the scar and loss of flexion of fingers and he has quite a crippled hand, but he is able to use it in writing and in his work. The original tubercular disease extended to the tendons and they had to be touched with the actual cautery and a portion excised and an attempt made to repair so as to reserve the continuity of the tendons. The opinion of the Society was asked as to the value of that operation and a result of this kind compared to an amputation.

DR. SULLIVAN said that in tuberculosis of wrist joint, excision is preferable to amputation. That every possible effort should be made to save even a portion of a hand is a good rule in surgery.

#### CHOLECYSTECTOMY FOR CHOLELITHIASIS.

DR. O. A. GORDON exhibited a gall bladder which was removed from a

woman who came, suffering from gall-stone colic. Age 38. She gave a history of attacks lasting seven years and was anxious for operation. The usual incision was made to explore the gall-bladder region; the bladder was found completely filled with stones and contracted; it was deemed justifiable to remove it. The patient sat up on the twelfth day and made an uneventful recovery.

#### GASTRIC ULCER.

DR. GORDON reported the following case:

Mrs. R. Age 27. General health had always been good. Had typhoid seven weeks during September and October, 1908. During the convalescence from typhoid, patient developed pain in the right hypochondrium and epigastric regions. This pain was intermittent in character and radiated to the back and right shoulder. Soon after began to have attacks of acute indigestion with pain in the stomach and acid eructations after meals. A few days before her admission to St. Mary's Hospital, she vomited free blood and clots during the night. Had three such attacks before her admission.

At 11.30 P. M., January 15, 1909, vomited about two ounces of blood; January 16th, 1.30 A. M., vomited about six ounces with clots; 11 P. M., about one ounce. Blood count January 1st was 2,764,000 red cells, 40 per cent. hæmoglobin. Patient rallied and on January 25, 1909, at operation, the pyloric end of the stomach was found attached to the anterior peritoneum. The adhesion was not disturbed. A posterior gastro-jejunosomy was done by the suture method; she made a slow but good recovery and left the hospital

in good shape. When seen recently she had gained thirty pounds and was having no trouble with digestion.

DR. WM. B. BRINSMADE said that there was a considerable class of patients, suffering from symptoms of gastric ulcer, who frequent the hospitals and dispensaries for months before they get to the surgical department. Many of these patients get into a condition similar to that in which Dr. Gordon's case was when he operated on her. I want to say that it requires courage to operate on a woman with that blood count. Most of these cases have suffered for months or years, under palliative treatment and they should have the benefit of radical surgical measures while they are still able to

walk around. The diagnosis must be made before the first hemorrhage—of all the methods of diagnosis, the search for occult-blood is of the least value. A negative result means nothing. There is no reason why a gastric ulcer should bleed all the time any more than any other ulcer.

In answer to Dr. Brinsmade, Dr. Gordon said that in this case, as the patient was convalescing from typhoid fever, it was deemed advisable not to hasten operation, and she was left under medical treatment until January 15th, when she again vomited blood, operation was not done until January 25th, because of her desperate condition. It was a question between operation and allowing her to bleed to death and the result seems to have justified the procedure.

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## TRANSACTIONS OF THE BROOKLYN GYNECOLOGICAL SOCIETY

*Meeting March 4, 1910*

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### TUBERCULAR PERITONITIS.

DR. CARROLL CHASE reported two cases of tubercular peritonitis, both of which were Promptly Fatal after Operation.

Miss H. M., age 39, operated on three years ago, by Dr. F. J. Shoop, for inguinal hernia. The peritoneum at that time was healthy. The ovary appeared at the inguinal ring and was normal except for a few small cysts which were punctured. She remained in good health until the spring of 1909, when she was treated by Dr. Shoop for moderate obstruction of the bowels, which was relieved by medical treatment. She was very

much constipated but was otherwise well until the summer of 1909, while away in the country, she was taken ill with what a physician called acute appendicitis. She improved and came to the city for treatment, entering the Samaritan Hospital August 31, under Dr. Shoop's care. On admission her temperature was 101° and she was evidently quite sick. A diagnosis of chronic appendicitis and ovaritis was made. She was operated on ten days later and the following condition was found:

The entire peritoneum was markedly thickened and studded with miliary tubercles, both ovaries and tubes were



enlarged and inflamed and matted together and no appendix could be found at the time of operation. Adhesions were numerous and dense.

Because of the thick adhesions, the operative work was necessarily slow. Both ovaries and tubes were taken out, and after the operation, the appendix was found in the mass made up of the right tube and ovary.

The woman rallied well after the operation and the pulse and general condition remained good for twenty hours; then the heart suddenly failed to do its work, and despite heroic stimulation and every possible treatment, she died, thirty hours after operation.

The second case was Miss E, age 18, first seen by Dr. Chase on January 10, 1910.

She gave the following history: All she complained of was vomiting, usually in the morning, and a gradual increase in the size of the abdomen, first noticed about Christmas of last year. When Dr. Chase saw her, the abdomen was as large as a seven months pregnancy, the increase in size being very evidently due to fluid. The first impression was that it was a distended bladder. This was easily disproven. The possibility of ovarian cyst was thought of but careful rectal examination showed both ovaries comparatively normal. The possibility of tubercular peritonitis was considered; also the possibility of the fluid in the abdominal cavity being due to some obstruction of the portal circulation.

She entered the Samaritan Hospital January 29th. The temperature before entering the hospital never went above normal. Dr. Stivers saw the case in the hospital with Dr. Chase and thought it was tubercular perito-

nititis although the possibility that the fluid was due to some renal or hepatic trouble was considered. The temperature for the seven to eight days that she was in the hospital prior to operation was between 99.5 degrees and normal. She never had any temperature over 100 degrees.

She was vaccinated according to the method of Von Pirquet and a very slight reaction resulted, the vaccinated area being but very moderately inflamed. Dr. Chase stated that if he had not made a control vaccination at the same time, he would hardly have called it positive. The increase in the size of the abdomen continued until the distension was very marked. The abdomen was so completely filled with fluid as to cause some difficulty in breathing. Diuretics and medical treatment produced no effect.

An exploratory laparotomy showed a condition very similar to Dr. Shoop's case except that the uterus, tubes and ovaries were comparatively normal. The entire peritoneum was thickened and covered everywhere with miliary tubercles. Adhesions were dense throughout the entire abdomen. Nothing was done at the operation except to explore and take out between three and four gallons of light greenish fluid. A great deal of care was taken to keep up the abdominal pressure while the fluid was being evacuated, and later a supporting binder was applied. She stood the operative procedure well and the pulse did not go above 112 for 17 hours. At that time the heart suddenly gave out and she died 29 hours after operation despite heroic stimulation.

I underestimated the gravity of the case entirely. I told the girl's parents there was almost no danger connected with the operation, and Dr. Shoop

felt the same way regarding his patient, although more operative work was done on his case and the operation took much longer.

Dr. Chase stated that he would like to ask the gentlemen present if they had had similar experiences and if they had found a decided lack of resistance in such cases.

Dr. Chase was surprised at the extent of the tubercular peritonitis which existed in each case and the very moderate temperature they ran; particularly the latter case which had an intense peritonitis, though the temperature did not reach 100°. Another point is the value of the Von Pirquet vaccination in abdominal surgery. Dr. Chase is going to use it a good deal more than in the past. When he is not certain that there is tuberculosis present, the vaccination will do no harm and should it prove positive there is pretty clear proof that a tuber-

cular condition is existing in the patient.

Regarding the possibility of hemorrhage as the cause of death.

In the first case, a tubercular condition of the viscera was not suspected at all. There was no apparent evidence of hemorrhage or perforation as a cause of death. No autopsy was secured and it is not absolutely certain whether such was the cause or not.

In the second case, no operative procedure was done except opening the abdominal cavity and closing it again after letting out the fluid. Dr. Chase stated that he did not see how there was any chance for hemorrhage in this case. There was no evidence of it, although there was free drainage of fluid from the peritoneal cavity.

A paper was read by Dr. Davis entitled the Relation of Law to Medicine.

## BOOK REVIEWS.

Edited by JAMES M. WINFIELD, M.D.

**Principles and Practice of Physical Diagnosis.** By JOHN C. DAcOSTA, Jr., M.D., Associate in Clinical Medicine, Jefferson Medical College, Philadelphia. Octavo of 548 pages, 212 illustrations. Philadelphia and London, W. B. Saunders Company, 1908.

A new book on so thoroughly thrashed out a subject as physical diagnosis should have some particular merit to establish its claim to our consideration. Perhaps the chief merit of this book is its excellent didactic method, for it impresses us more as an instruction book than as a book of reference. It also has the merit of moderation in length. The literary style is rather better than the average found in modern medical books. The illustrations are

numerous and good, and the fashion lately introduced of using photographic representations of the female form to illustrate surface topography is not disregarded. This book will be found very useful for students and practitioners who are taking a systematic course of instruction in physical diagnosis. E. E. C.

**An Epitome of Diseases of Women.**

By CHARLES GARDNER CHILD, JR., M.D. (Yale), Clinical Professor of Gynecology, New York Polyclinic Medical School and Hospital, 12mo, 210 pages, with 101 engravings. Lea & Febiger, Publishers, Philadelphia and New York, 1909. (*Lea's Series of Medical Epitomes.* Edited by VICTOR C. PEDERSEN, M.D., New York.)

Child's Epitome of Diseases of



Women bids fair to fill a place in the hands of the student that is by no means overfilled—and to the busy practitioner, will be invaluable as a reference.

The series of quiz "Questions" which follow the text is a unique innovation, and will merit study, as covering, as it does, fully the contents of the epitomes.

Apart from the brevity of technique of the various operations, which for the practitioner might be amplified without injury to the book as an epitome. This little book ought quickly to be in popular demand.

W. B. SAVAGE.

**Appendicitis and Other Diseases of the Vermiform Appendix.** By HOWARD A. KELLY, M.D. Lippincott Company, Philadelphia and London.

Kelly's first work on appendicitis appeared in 1905. Since that time he has been constantly collecting data, studying the various clinical forms of the disease, and has been able to secure magnificent illustrations to elucidate his text.

He makes a special effort to present the subject in a way to be of practical value to the general surgeon.

The illustrations are of the highest order throughout, conveying to the reader the relations of the various tissues in a way that no other method could do.

It has been Kelly's good fortune to have as his assistants men and women of exceptional ability and learning. Horn, Broedel, Becker, and Huntington, have all been trained to see correctly, and are able to grasp quickly the peculiar anatomical and pathological conditions which are presented, and further to reproduce them graphically.

All phases of appendicitis are considered. The chapters on leucocytosis in appendicitis, appendicitis and typhoid fever, and appendicitis in youth and old age, are especially instructive.

The book contains 489 pages, with three plates and 215 illustrations.

**A Text Book of the Principles and Practice of Surgery.** By GEORGE EMERSON BREWER, M.D., Professor of Clinical Surgery in the College of Physicians and Surgeons, New York. Octavo, 908 pages. Lea & Febiger, Philadelphia and New York, 1907.

This new addition of Brewer's *Principles and Practice of Surgery* shows a careful revision of the entire book. The number of illustrations have been increased and improved.

Such a book as this appeals more to the general practitioner than does the larger treatise composed of four or five volumes. It is more complete than a manual because it brings together and associates in the mind of the student the close relationship between pathology and treatment.

To the general surgeon it serves as a book of reference in which are detailed the important surgical conditions, avoiding theory and needless repetition. More space has been devoted to surgical pathology and the recognition of gross conditions as met with in the body. It is noted that the surgery of the kidney and bladder receive more than ordinary attention.

The work can safely be recommended to any one who wishes a comprehensive and concise treatise on surgery.

**The Practitioners' Visiting List for 1910,** Lea & Febiger, Publishers, Philadelphia and New York.

A pocket-sized book containing memoranda and data important for every physician, and ruled blanks for recording every detail of practice. The Weekly, Monthly and 30-Patient Perpetual contain 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil with rubber, and calendar for two years.

**The Serum Diagnosis of Syphilis and the Butyric Acid Test for Syphilis.** By HIDEYO NOGUCHI, M.D., M.Sc., Associate Member of the Rockefeller Institute for Medical Research. By J. B. Lippincott, Philadelphia, 173 pages, 14 illustrations.

The application of the Bordet-Gengou phenomenon of complement fixation to the diagnosis of syphilis, discovered by Wassermann, Neisser and Bruck in 1906 is certainly the most important contribution to the diagnostic armamentarium in recent years.

There is no doubt after the vast amount of work done by the many investigators that the test is of great value in the diagnosis and treatment of lues. The practitioner of medicine should not only avail himself of this valuable method, but should understand thoroughly its principles and technique, its extent and limitations. Noguchi in his recent book has presented the subject in an extremely simple and readable manner. He thoroughly acquaints the reader with the theory of hemolysis and its application to the diagnosis of syphilis before describing the reaction itself. The various forms of the serum test for syphilis as advanced by the different investigators, including the author's own method, are described at some length, and the advantages and disadvantages of each system are thoroughly discussed. The principles and technique of the Wassermann reaction and the author's own method are described in detail. Nothing is left to the imagination. Every point is gone over step by step, including a description of the apparatus necessary to perform the test, the method of

obtaining and preparing material, and directions for standardizing preparations; the technique of performing the test, and instructions for interpreting results. Great stress is placed upon the quantitative relationship of the factors used and possible sources of error are pointed out. The numerous colored illustrations are good and should be especially valuable in showing the different stages of hemolysis. The first part of the book is concluded with a chapter on the diagnostic value of the serum diagnosis test for syphilis which includes tables of the results of a large number of cases obtained by different workers. A comparative table of the Wassermann and Noguchi systems by Fox, Kaplan and Noguchi himself, including some 1,700 cases, show the author's method to be more delicate than the original Wassermann reaction.

The second part of the book is taken up with a description of the author's butyric acid test, which gives promise of becoming a valuable aid in the diagnosis of parasyphilitic diseases of the central nervous system and cerebrospinal syphilis. The author claims that a negative butyric acid reaction is more reliable in excluding syphilitic infection than a negative Wassermann reaction.

A glossary of technical terms is a valuable addition to the book.

The book ends with a complete bibliography which should be invaluable to those desiring to do further reading on the subject.

Dr. Noguchi is to be congratulated in providing the medical profession, and especially those doing laboratory work, with such a complete and detailed work.

ALFRED POTTER.



# LONG ISLAND MEDICAL JOURNAL

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## THE LONG ISLAND COLLEGE HOSPITAL

By JAMES MACFARLANE WINFIELD, M.D.,

Professor of Diseases of the Skin at the Long Island College Hospital.  
BROOKLYN, NEW YORK.

THE early history of the Long Island College Hospital is so closely linked with that of old Brooklyn that it is almost impossible to write the one without the other.

The College Hospital may justly be considered a product of the determined effort on the part of the citizens of Brooklyn to advance and uplift humanity. Brooklyn has always been noted for its churches, schools and charitable institutions, and the Long Island College Hospital is one of the tangible results of the city's ethical ideal of educating and benefiting mankind.

Many of the men who have helped make Brooklyn a center of culture and refinement were closely associated with the enterprise that is the subject of our sketch.

With the early history of the Hospital on Henry Street are identified the names of Samuel Sloan, Theodore and Henry D. Polhemus, Jacques Cortelyou, A. A. Low, Drs. Louis Bauer, William H. Dudley, and John Byrne, and so many bygone Brooklynites that when one reads the minutes of the Board of Regents bits of half-forgotten biographies recur to him and he seems to witness the deliberations of the Founders as the

life of this infant charity hangs in the balance.

In the chair sits the keen and far-seeing Irishman, Samuel Sloan, witty, generous and practical; near him are the deliberate and careful Polhemus, Cortelyou and Van Nostrand, descendants of that race who brought from Holland to America thrift, orderliness and unswerving honor in living up to an obligation.

With them are Chauncy, James, Christmas, Slocum, Bauer, Dudley, Byrne and Ayres, and many others, each giving his best thought and most earnest effort to assure the success of the undertaking.

Is it any wonder that with such varied and intelligent forethought, determined benevolence and unselfish generosity presiding over its birth, after fifty years of active life, we should find the Long Island College Hospital the splendid benevolent and educational institution it is today.

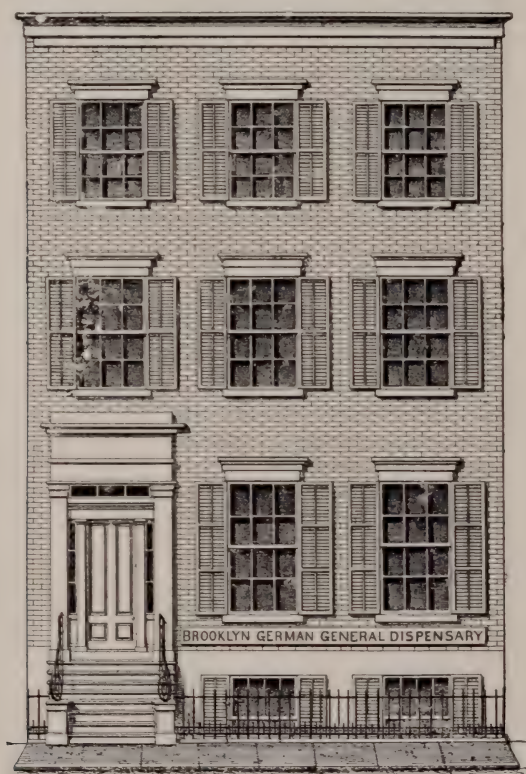
Passing before us we also seem to see those earnest, hardworking German physicians, Bauer, Braeunlich and Zundt who foresaw that here along the waterfront of a great seaport, would be the ideal place for a hospital and medical college.

Next we see that doctor of the old

school, Daniel Ayres, with him is Dr. John Byrne, who was destined to become one of the world's renowned gynecologists, and the earnest, determined Dr. William H. Dudley, whose dogged persistence and generous efforts often saved the flickering life of the institution in its stormy infancy.

tal arrayed as an army against disease, who, advised by the Regents and Council, led by the mighty men of medicine, cheered and encouraged by the prayers and praises of their chaplains, have built this fortress against disease and suffering.

In 1850 the population of Brooklyn was about 150,000 and there were



BROOKLYN GERMAN GENERAL DISPENSARY.

Aiding and abetting the efforts of the Founders, we hear the mellifluous eloquence of Henry Ward Beecher; the convincing logic of Frank Vinton, the "soldier priest of Brooklyn;" the cultured, deep, well-rounded utterances of Richard S. Storrs, and the earnest persuasion of Bishop Loughlin.

Is it too fanciful to picture the men who made Long Island College Hospi-

only three hospitals in the whole city; one of these was the United States Marine Hospital which was obviously unavailable for the city use. Kings County Hospital was under the direction of the Department of Charities and Corrections, and was intended for the County poor, but it was situated in the village of Flatbush, and in those days, Flatbush was a long way out in the country, and only in



dire necessity could the sick poor be persuaded to avail themselves of the care and treatment afforded them there; consequently the burden of caring for the city's sick was practically borne by the Brooklyn Hospital.

South Brooklyn was entirely without hospital facilities, until Dr. Louis Bauer, who had conducted an orthopedic institution situated on lower Pacific Street, felt that a hospital could be maintained by the Germans of the Sixth and Tenth wards of the City.

Accordingly, in conjunction with Drs. Gustav Braeunlich, William Arming, Edward Maebert and Herman Zundt, in 1856, organized the "Brooklyn German General Dispensary and Hospital." They leased a building on Court Street, opposite Warren Street (old number 147 Court Street).

The new dispensary hospital was ready for the admission of patients some time in March, 1856.

The staff of the new institution consisted of two consulting surgeons, two consulting physicians and two attending physicians and surgeons.

The ultimate object of this undertaking was the establishment of a large German hospital in a portion of the city where many Germans resided.

That the initial venture was a hospital as well as a dispensary is evident from the fact that there was a resident physician, and that the building was fitted up with a ward for the reception of ward cases, as well as an outdoor department; the records show that nearly a thousand patients were treated during the first year and a half.

In May, 1857, Drs. Daniel Ayres and John Byrne were added to the attending staff.

In November, 1857, a number of physicians and prominent laymen were invited to meet the staff of the German General Dispensary and Hospital, to discuss ways and means for putting the hospital upon a firmer footing.

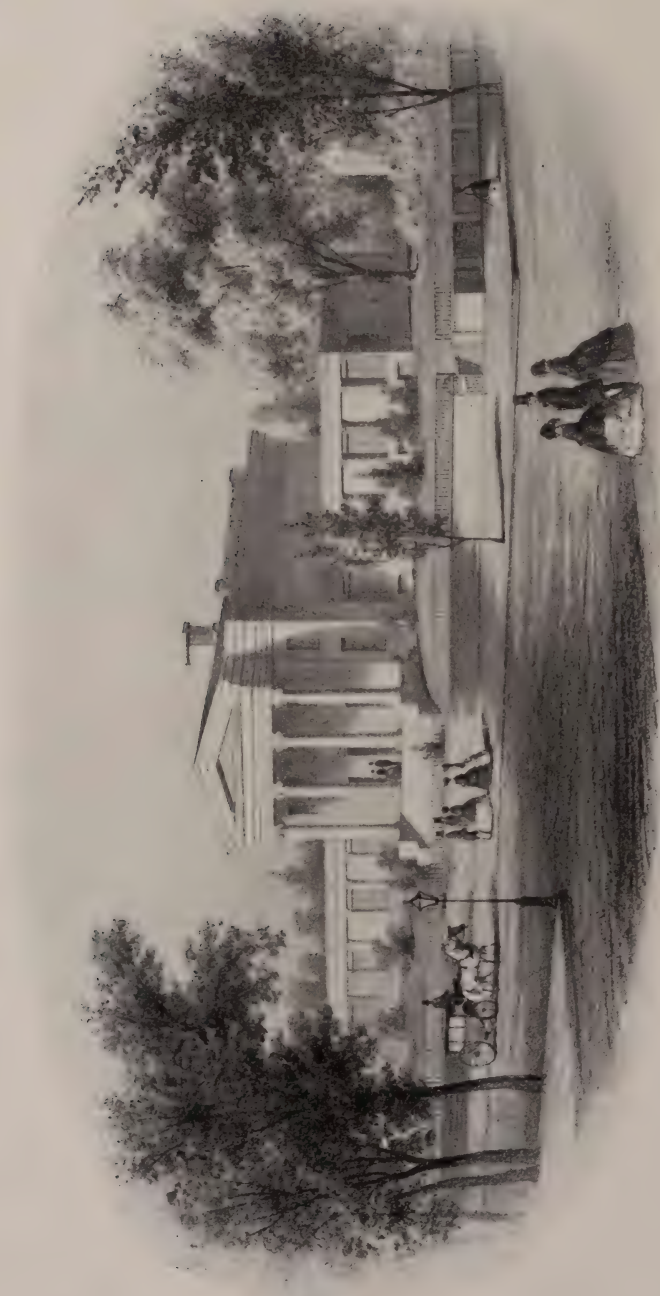
At this meeting the name of the institution was changed to "St. John's Hospital"; an advisory board, consisting of prominent laymen and physicians, was formed.

Evidently it was the intention of the managers to institute clinical instruction, for Dr. Daniel Ayres was appointed Professor of Surgery; Dr. Louis Bauer, Professor of Anatomy and Clinical Surgery, and Dr. John Byrne, Professor of Midwifery.



SAMUEL SLOAN

Later in the same month (November, 1857) another meeting of the Board was held, with the Hon. Samuel Sloan acting as Chairman. At this meeting it was agreed to renew the lease of 147 Court Street for six months; and Messrs. Chauncy and Dever were appointed a committee to provide for a hospital faculty.



PERRY MANSION.



As a result of this committee's deliberations, the following attending physicians and surgeons were appointed: Drs. Byrne, Chapman, Braeunlich, Ayres, and Bauer; adjunct physicians and surgeons, Drs. Olmstead, G. D. Ayres, Dodge, Johnston and Whaley. The Council were Dr. Theodore L. Mason, President; Dr. Chauncey L. Mitchell, Secretary; Dr. William H. Dudley, Registrar, and Dr. James H. Henry.

The minutes of the meeting of the Council and Faculty of St. John's Hospital of December 23, 1857, states that the name of the institution had been changed by adding the word College (The St. John's College Hospital). That this name did not please the Managers is apparent, for at the same meeting the name of the institution was again changed to the "Long Island Hospital and Medical College."

There is no record of when the change of name from the St. John's Hospital to St. John's College Hospital was made, although the records state that at a meeting held early in December, 1857, the following resolution was adopted:—"That the proposed modifications to the charter be adopted." In November, the founders had applied for a charter for the St. John's Hospital, and it is altogether probable that the proposed "modifications and additions" had reference to the change of name.

The sponsor of the Long Island Hospital and Medical College was the Hon. Samuel Sloan, long the President of the D., L. & W. R. R., who being a shrewd and far seeing business man, felt that a religious name might somewhat limit the hospital's usefulness, which was intended to be entirely non-sectarian in name as well as

in fact. The present Long Island College Hospital really dates from December 27, 1857. Early in 1858, the founders purchased the Perry property; this comprised fourteen city lots, situated on Henry Street, between Pacific and Amity. It was one of the finest estates in that part of the city, the mansion was spacious, and was surrounded by an elaborate garden; it had belonged to Mr. Joseph A. Perry, whose wife was the daughter of Mr. Henry B. Pierrepont, whose family was one of the first to settle in Kings County. The price paid for this property was \$31,200 and the Hon. Samuel Sloan gave his personal bond for the purchase money.

The charter, under the name of the Long Island College Hospital (the words "and Medical" having been dropped in December, 1857) was obtained March 13, 1858.

After the granting of the charter, the next most important question was: What method of teaching was to be employed in the newly chartered college hospital?

At this time clinical teaching was not in general vogue in America, although late in the eighteenth century Benjamin Rush prescribed and lectured before his pupils in the Pennsylvania Hospital. In 1801, surgical and obstetrical clinics were held in the New York Hospital; operations were performed before the students at the National Medical College in Washington in 1821, and in 1841, Dr. Willard Parker established the College Clinic at the College of Physicians and Surgeons, New York.

The predominating influence toward establishing clinical teaching in the new college was Dr. Louis Bauer, who was the originator of the German Dispensary and Hospital, and also the

first physician to teach and practise orthopedic surgery in America.

He was a graduate of the University of Göttingen, and later received the degree of M.D. from the University of Berlin. He was a member of the Prussian Parliament, and became involved in the political upheaval of 1848-49; this caused him to leave Ber-

William H. Dudley became interested in the enterprise, and threw the entire weight of his influence toward establishing the clinical method of teaching medicine in the new college.

Dr. William H. Dudley was born in Ireland in 1811. He attended lectures at the Royal College of Surgeons, Dublin, from 1831 to 1833; in 1833 he



LOUIS BAUER, M.D., F.R.C.S.

lin for London, where he resided for six years. While in London he received the degree of F. R. C. S. from the Royal College of Surgeons; he came to America in 1855. It was his ambition to apply in the new world the best methods of teaching of the old, and this infant undertaking in the city of Brooklyn afforded him an opportunity. While the method of teaching was not yet fully decided upon, Dr.

accepted the position of Health Officer to the Marine Hospital, Jamaica, West Indies, where he remained until 1841; he then came to the United States and resumed his medical education at the College of Physicians and Surgeons, New York, receiving the degree of M.D. in 1842; he began the practice of medicine in Brooklyn in 1843; he was elected a member of the Council of the St. John's Hospital (afterward



the Long Island College Hospital) in 1858, in which position he remained until his death in 1886. He was a member of the Board of Regents from 1878 to 1886, and President of the Collegiate Department from 1881 until his death in 1886.

The powerful influence of these two gentlemen guided the deliberations, and teaching medicine by clinical instruction was adopted, thus making the Long Island College Hospital the first medical school in America to introduce bedside teaching. Many of



WILLIAM HENRY DUDLEY, M.D.

these lectures, together with the reports of operations performed before the class, were published in the medical press of the time.

The hospital (the Perry mansion) consisted of an outdoor department and accommodations for twenty-five bed patients.

The first house surgeon from May, 1858, to May, 1859, was Dr. George A. Ostrander, of 61 Greene Avenue, who is still an active practitioner in Brooklyn.

On June 2, 1858, the new institution celebrated its inaugural by a banquet, held at the Athenæum.

The Hon. Samuel Sloan presided. Among those present were: Drs. James S. Francis and James R. Wood, of New York; Drs. Mason, Bauer, Dudley, and many other prominent Brooklyn physicians. The clergy was represented by Archbishop Hughes, Bishop Loughlin, the Revs. Richard S. Storrs, W. H. Milburn, Joseph Schmeller, Frank Vinton, F. H. Farley, etc. Among the laymen were the Hon. J. S. T. Strananhan, Prof. John H. Raymond, A. A. Low, S. B. Chittenden, and other prominent lay and professional men.

In October, 1859, the following professors were recommended to deliver the first regular course of lectures at the Long Island College Hospital: They were Drs. Austin Flint and Frank Hamilton, of New York; Dr. J. D. Trask, of White Plains; Drs. Joseph C. Hutchinson, Dewitt C. Enos, and E. N. Chapman, of Brooklyn.

The professorships of physiology and chemistry were not filled at this time. The recommendations were received and discussed at this meeting, but on account of the financial embarrassment of the Institution they were not acted upon.

At the same meeting, the committee who had under consideration the liquidation of the indebtedness on the recently acquired property reported that they thought it would be wiser to close the building and sell the property; consequently, it was resolved to advertise the holdings of the institution for sale at public auction, at a price not less than \$28,000.

At a meeting of the joint board,

held late in November, 1859, the Secretary received a communication from a Committee of the Teaching Faculty protesting against the action of the previous meeting in not establishing a teaching corps. On motion, the action of October 25, was reconsidered and the teaching department was fully established. (There had been medical instruction from the beginning, but there had never been any definite college faculty until now.)

At the next meeting, held December 22, 1859, a Committee reported that the property belonging to the Long Island College Hospital had been sold to William H. Dudley, M.D., for \$28,000; it remained vested in Dr. Dudley until 1865. At the same meeting, R. Ogden Doremus, M.D., of New York was appointed Professor of Chemistry, and John C. Dalton, M.D., also of New York, Professor of Physiology.

After being closed about six months, the hospital was reopened March 29, 1860. The next day, regular medical lectures were begun under the guidance of the strongest faculty ever formed in America.

The first Commencement Exercises were held in the chapel of Packer Institute, July 24, 1860. Dr. Richard S. Storrs was the first speaker. Addresses were made by Prof. Austin Flint and Drs. Mitchell (the President of the Collegiate Department) and Mason. Dr. S. J. Morrison, was the valedictorian.

The graduating class numbered twenty-one; two of the graduates were the famous missionaries, the Revs. John and Jared Scudder. Out of this class, ten served in the Civil War; six were surgeons in the Union Service, three in the Confederate, and one enlisted as a private.

Until 1878, the members of the faculty were often non-residents of Brooklyn, but since that year only local physicians have held professorships.

February 18, 1861, a preliminary course of lectures were begun. The second regular course began one month later, and continued until June 16.

The third regular course was given during the height of the Civil War, and it is a significant fact that this was the smallest class ever graduated from the college.

These were stormy times; the Civil War was raging, the hospital's finances were low, and it was deeply in debt, and from reading the minutes of the proceedings one may gather that the opinions of the various bodies that made up the organization were not in harmonious accord. In spite of this there were men on the Board of Regents, who once having taken hold of the enterprise, never let go, nor turned back until the difficulties were overcome.

In these straits, Samuel Sloan again came to the front and personally solicited and collected \$8,000 towards the liquidation of the hospital's indebtedness.

At this time the Council agreed to assume all responsibility for the collegiate department; a like proposition was received from the hospital faculty and staff.

Early in 1862, the hospital began receiving wounded soldiers; the first half year one hundred and twenty-five men had received medical care. For this the citizens of Brooklyn liberally contributed both time and money and the sympathetic women aided in nursing the sick.

It would be interesting to know the



exact number of soldiers cared for by the hospital, but this the records do not give. The first consignment was one hundred and twenty men and subsequently ninety more were admitted. The logical inference is, that since this was the first hospital in the metropolitan district to receive wounded soldiers it continued to do so throughout the whole course of the war.

was from Dr. William H. Dudley; too much praise cannot be given Dr. Dudley for the assistance he always gave the hospital.

The additions and alterations to the original Perry mansion were so extensive, that little then remained of the original building. In 1859, the Pacific Street addition was opened, and a similar one on the south (Amity



LONG ISLAND COLLEGE HOSPITAL IN 1900.

The income received from the United States, together with the aid furnished by the generous-hearted Brooklynites, enabled the hospital, with the greatest economy, to pay expenses.

Late in 1864, a special committee reported that they had obtained \$22,800 by subscription. This sum was to be used to free the hospital from debt. The largest single subscription

Street) side was opened in 1861; this last extension was erected to obtain room for the United States sailors.

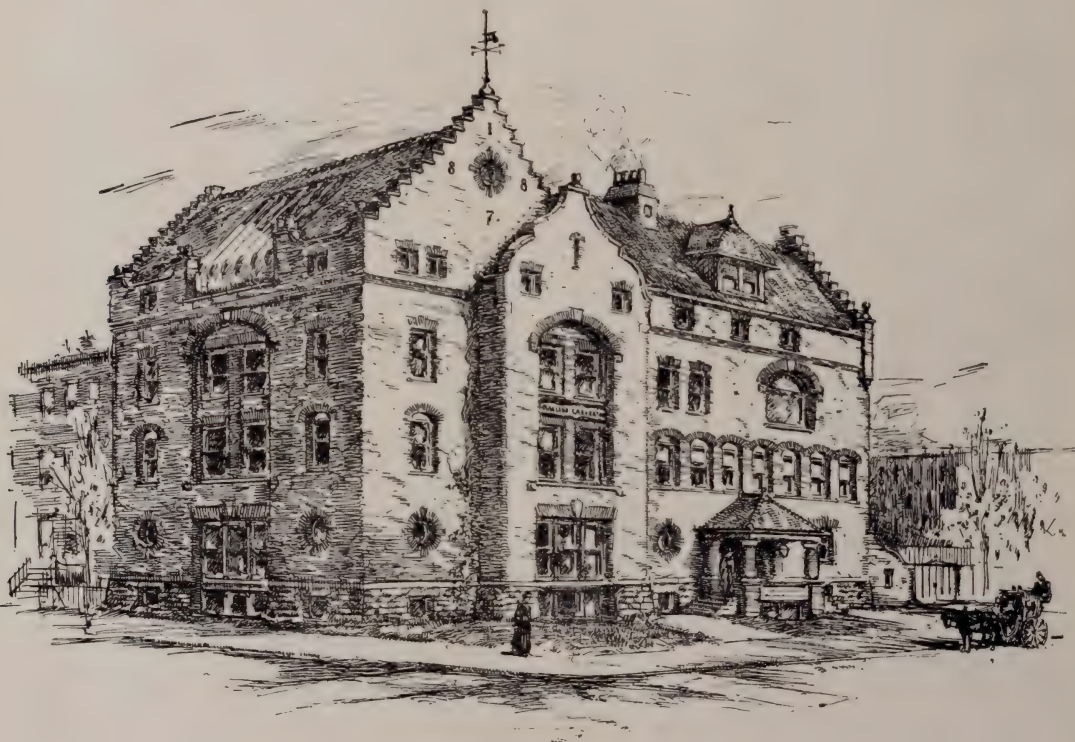
In 1882, the original Perry building, which was the center building of the hospital, was extended back. In 1887, the Pacific Street extension was enlarged and exclusively used for a maternity hospital.

In 1872, the schedule for lectures

in the collegiate department was changed, the regular term being supplemented by a reading and recitation term.

In 1880, the question of introducing a training school for nurses was agitated, but as this did not meet with general approval, nothing was done until 1883, when the training school

wounded soldiers of the Spanish-American War. Accordingly the Amity Street wing was prepared for their reception. In all, 420 men were treated; the total number of deaths was only 12, a remarkably low mortality when it is remembered that most of the cases were typhoid fever in its most malignant form.



HOAGLAND LABORATORY.

for nurses of the Long Island College Hospital was established.

In 1897, the Women's Guild of the Long Island College Hospital was organized; the purpose is to provide clothing and other necessary articles for the sick children under treatment in the hospital.

In the spring of 1898, the United States War Department selected the Long Island College Hospital as one of those to care for the sick and

The Long Island College Hospital has been particularly fortunate in the matter of endowments. Among the more important of these are the following: In 1888, \$10,000 was received by legacy from Mrs. James Humphreys; in 1889, by legacy from Mr. John J. Van Nostrand, \$3,000; in 1891, \$5,000 each from the late R. P. Burk and John Ruszits. In 1886, Dr. Cornelius N. Hoagland, one of the Regents of Long Island College Hos-



pital, purchased a site opposite the hospital on the corner of Henry and Pacific Streets and erected upon it the Hoagland Laboratory. This building was primarily intended for instruction in bacteriology and for special

collegiate department, as certain parts of the laboratory are set aside for undergraduate instruction in practical histology and pathology.

The building, equipment and endowment amounts to about \$200,000.



POLHEMUS MEMORIAL CLINIC.

research work along bacteriological lines. The institution is controlled by a different board of directors from that controlling the college hospital and the only way in which it is connected with the college is through the

One of the great events in the life of the hospital and college was the erection of the Polhemus Memorial Clinic in 1898. This was a memorial of Henry Ditmas Polhemus, for many years a Regent of the Long Island

College Hospital, given by his wife who wished to perpetuate his memory in an institution that had so often benefited by his advice and generosity.

The dispensary is situated on the two lower floors of this building. The remainder of the building is used for the medical college.

In 1899, Mr. Henry W. Maxwell

The Maxwell Memorial is one of the most complete hospitals in the country and when finished will accommodate about four hundred patients.

It comprises four distinct, though connected, buildings, A. B. C. D., of which A. and B. are completed, and also the greater part of building B.

A. is a five-story, basement and sub-



DUDLEY MEMORIAL.

erected to the memory of Dr. William H. Dudley, a building on the corner of Henry and Amity Streets, to be used as a nurses' home. This is known as the Dudley Memorial.

Shortly after the death of Mr. Henry Maxwell, his brother, Mr. J. Roger Maxwell, a Regent of Long Island College Hospital, announced that he would erect an entire new hospital on the site of the old one, as a memorial to his brother.

basement structure, one hundred by forty-four feet; it has a tile roof with sun parlor and ample room for promenade; on this roof are also located the water tanks, where the entire supply for the whole building is kept under pressure. Fire lines extend from these tanks to all parts of the buildings, and are made available through hoses located at convenient points on every floor.

In this building are two wards con-



taining twenty-four beds, forty-six private rooms, quarters of the superintendent and assistant superintendent, main office, office of the training school for nurses, staff rooms, regents' rooms, waiting room, baths, boiler rooms; the linen closets and serving rooms are located on each floor.

The basement is given up to the kitchen, cold storage rooms, butcher shop and pharmacy.

The accident rooms, reception room, and rooms for violent patients are also in the basement.

The sub-basement contains the pipe galleries, elevator machinery and store rooms.

Building B. is two hundred and twenty by forty-four feet and four stories high, has roof pavilions with conveniences for the outdoor treatment of patients in all kinds of weather. A part of it can be enclosed and heated, another section is arranged for a shelter and there is a promenade around the whole.

The fourth floor is given up to operating rooms and the quarters for the house staff. There are three operating rooms; the main one, an amphitheatre, with seats for two hundred and fifty spectators, is supplied with every convenience for modern surgery. This is known as the Skene memorial, and is in memory of the late Dr. A. J. C. Skene.

Connected with this room is a sitting room for the operating surgeons, shower baths, toilet and lavatory, and metal lockers for the operating staff.

On the opposite side of the operating room is the scrub-up room, the instrument and sterilizing rooms; in the instrument room are the lockers for the instruments and dressings, etc.

In this building there are also two private operating and scrub-up rooms and an X-ray room and laboratory.

The third floor is in two divisions, the children's ward at one end and the maternity at the other. The children's ward contains thirty-five beds and there are twenty in the maternity.

The second and first floors are arranged for female medical and surgical patients. On each floor there are two wards of sixteen beds each, one semi-private ward of four beds and five private rooms; in addition to these there are drying rooms, dining rooms, one quiet room, office, baths, toilet and linen closets.

The basement, which is above the street level, contains rooms for the female help. A portion of the basement is partitioned off by a solid wall, and serves as a temporary isolation room for suspected contagious cases.

The sub-basement contains the pipe galleries, water filters, carpenter and paint shop, and the elevator machinery.

Building C., situated on the Pacific Street side, is now being constructed and will be a copy of B. This will be devoted to male patients, medical and surgical. This will contain the dining rooms for the house staff, and quarters for the male help.

Building D. is a two-story and basement structure directly in the rear of A., and extending from B. to C.

The two upper stories are used for laundry, linen room and drivers' quarters.

In the basement are the boilers, pumps, electric generators and other machinery.

In the yard at the rear of the hospital there is another isolation section containing the laboratory, morgue and

mortuary chapel, these are all fitted up in the most modern manner.

The building is a fire-proof structure, built of Harvard brick and Indiana limestone. The floors are of steel and concrete, the only wood used in the construction is the doors and window frames and sashes.

The heating system is the direct overhead steam type. All machinery is driven by direct electric motors, the current for all purposes, including lighting, is generated on the premises. There are four electric elevators, two for passengers and two for freight.

The Long Island College Hospital is today one of the foremost medical colleges and hospitals in the country.

For many years its usefulness was hampered by lack of funds, but the

devoted energy and hopefulness of those interested in it has always enabled it to do efficient and laudable work, and now that its time of struggle is over, with an excellent equipment and sufficient endowment, we confidently expect to see it step ahead with advancing science and become one of the world's great medical schools and hospitals.

The writer wishes to acknowledge, with many thanks, his obligations to Dr. William Schroeder; Raymond's History of Long Island College Hospital; old files of the *Brooklyn Eagle*, and the Long Island College Hospital *Chronicle*, etc., Mr. Waid for the photograph of the new hospital, and Dr. Richard E. Shaw, the superintendent, for a detailed description of the Maxwell memorial.



MAXWELL MEMORIAL, LONG ISLAND COLLEGE HOSPITAL.



# HEMORRHAGE FROM THE KIDNEY

## ITS RECOGNITION, SIGNIFICANCE, AND TREATMENT.\*

By PAUL M. PILCHER, A.M., M.D.,

Consulting Surgeon to the Eastern Long Island Hospital, Greenport, N. Y.; Associate Surgeon to St. John's Hospital; formerly attending Surgeon to the German, Seney, and Samaritan Hospitals; Cystocopist to the Jewish Hospital.

THE symptom of blood in the urine is not sufficiently distinctive to enable a positive diagnosis of its source to be made without taking into account the possible diseases in which such an event is liable to take place. Its existence alone and without the history or occurrence of any other abnormality directing our attention to a certain portion of the genito-urinary tract is more frequent than otherwise. Strangely enough, the same lesions may give rise to symptomless hematuria, and one associated with pain.

*Hemorrhage from the Urethra* may occur independent of urination. The various lesions which are accompanied by urethral bleeding are, as a rule, easily diagnosed. Traumatism, foreign bodies in the urethra, ulceration, malignant disease and stricture, comprise the most frequent causes, but there are other conditions of the prostatic urethra which are difficult to explain, causing a congestion of the veins, enlargement of the veru-montanum, and intermittent hemorrhage.

Two such cases have come under my observation during the past month.

CASE I.—A gentleman of 65 years of age, referred by Dr. Jenks. He at no time had noted any blood in his urine. In the morning, after a night's rest, he noticed on his bed clothing some spots of blood. No considerable hemorrhage occurred at any time, but the conditions persisted and caused him anxiety. Examination of the urine was entirely negative. Examination of the prostate and seminal vesicles were negative.

\* Read before the Brooklyn Pathological Society, March, 1910.

Urethroscopic examination of the prostatic urethra showed an intense congestion of the vessels of the posterior urethra involving those covering the veru-montanum.

CASE II.—Referred by Dr. Hartranft. Patient, who had never before found any blood in the urine, now noticed that in the morning there were blood stains upon the bed clothing, especially when there had been seminal emissions. He also noticed that there was blood mixed with the emissions occurring during coitus. Examination determined that the bladder, prostate, and seminal vesicles were normal, and that there was a swelling of the veru-montanum and congestion of the prostatic urethra.

Hemorrhage from the prostatic urethra is generally due to varicosities or congestion brought on by various causes. As a rule the urine first passed is clear and the blood appears just at the close of urination, the last few drops being especially red with blood. Sometimes, however, the blood may precede the urine, the middle portion being clear, and the last portion bloody. Such cases are too numerous to need any illustration. The occurrence of hemorrhage in this way, however, cannot always be accepted as diagnostic of prostatic hematuria, for in a recent case of my own, the occurrence of hematuria at the end of urination was due to ulcerative cystitis.

CASE III.—A man 48 years of age; for the past year has had some slight irritation of the bladder, attributed by him to uric acid causes. Ten days ago he had a sudden increase in the frequency of urination, with pain at the end of urination associated with all the symptoms of acute cystitis. After three days, blood began to appear at the end of urination, suggestive of either prostatic congestion or acute cystitis. The first urine passed would be practically clear and at the end there would be passed one or two c.c. of very bloody urine. In a man of his

years, a malignant growth was suspected, but cystoscopic examination showed a large ulcer on the anterior wall of the bladder. Each time the bladder was emptied the ulcerated surface pressed against the prostatic urethra and expressed blood. The condition was entirely relieved by local treatment.

*Hemorrhage from the Bladder* is most frequently a symptom of acute

quency as a cause of the bladder hemorrhage.

*How may these be Differentiated?*

—The symptoms of *gonorrheal cystitis* are extremely acute, and, as a rule, are not easily mistaken.

Hemorrhage due to *calculus* is



FIG. I.—CYSTOSCOPIC APPEARANCE OF MALIGNANT PAPILLOMATA OF THE BLADDER. THE ONLY SYMPTOM IN THIS CASE WAS HEMATURIA.

cystitis, especially gonorrheal. It is most marked in hemorrhagic cystitis, in which the entire surface of the bladder is studded with ecchymotic spots expressive of minute hemorrhages; ulceration of the bladder, vesical calculi, tuberculosis of the bladder and neoplasms, especially the papillomatous tumors, are next in fre-

quency as a cause of the bladder hemorrhage. fairly characteristic, taken in combination with the usual signs of vesical stone, but, nevertheless, I have found, after numerous cystoscopic examinations in this condition, that a correct diagnosis has been made in less than 75 per cent. of the cases.

*Tumors* of the bladder cannot be positively diagnosed without the use



of the cystoscope until the disease has advanced to such a stage that it is practically inoperable.

Tuberculosis of the bladder is less difficult to diagnose, but for accuracy the cystoscope is necessary.

Hemorrhage following the sudden relief of distention of the bladder is occasionally seen.

*Ureteral Hemorrhage*, per se, unless due to congestion or inflammation

showed both ureter openings to be normal, the foreign body having disappeared from the ureter opening. It was fair to assume that a clot had been passed from this opening. Catheter passed into each ureter showed an equal amount of blood from both sides, due apparently to the trauma of the procedure. A diagnosis of renal varix was made and operation suggested. This was refused. The patient was later examined by another surgeon and the cystoscopic appearance of the left ureter showed a prolapse of the mucous membrane with varicosities, constituting practically an angioma of the lower portion of the ureter. The angiomatous area was excised and the bleeding ceased.

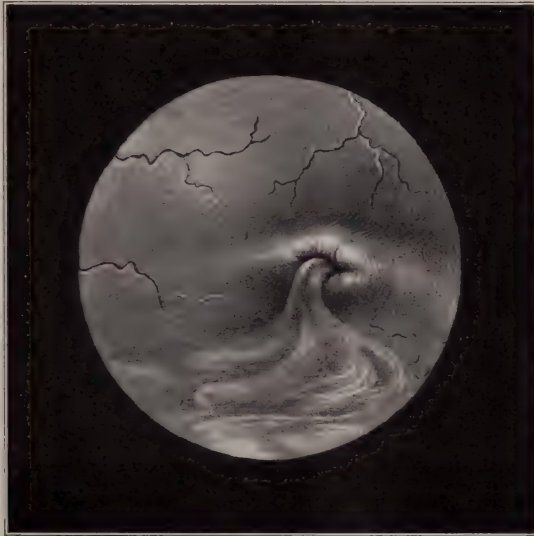


FIG. II.—CYSTOSCOPIC APPEARANCE OF URINARY EFFLUX FROM URETER OPENING.

associated with other pathological diseases of the genito-urinary tract, is a rarity. One case will serve as an example.

CASE IV.—A young man was referred to me for examination by Dr. Gordon. His only complaint was hematuria. After a severe muscular strain he noticed blood in the urine, and it was supposed he had caused some injury to his kidney. Rest in bed and the use of various drugs failed to control the bleeding. It ceased for a few weeks and then recurred, and at the time of my examination there was a slight hemorrhage going on. The urethra and bladder were normal. *Meatoscopy* showed the right ureter opening to be normal, and the left ureter occupied by a foreign substance, which looked like a clot of blood. This was viewed by several physicians who were present. A second examination

Stone descending the ureter, ulceration, etc., may give rise to hematuria with characteristic symptoms.

*Hemorrhage from the Kidney.*—The origin of bleeding from the kidney can only be determined with accuracy (1) by surgical operation, or (2) by use of the cystoscope or segregator. Of these methods, the cystoscope is the more accurate, although errors have been recorded by both methods.

By the aid of the cystoscope we determine that the bleeding is coming from one of the kidneys, and what

remains to determine is the probable cause of the hemorrhage. In some cases the amount of blood present is so large at all times that it is practically impossible to make a satisfactory cystoscopic examination.

*Diagnosis.*—Before the cystoscope came into use there were certain rules laid down for determining the source of hematuria.

1. *The Color of the Urine.*—In general, it may be said that the brighter the blood the nearer the source of the hemorrhage is to the meatus.

2. *The Time of Appearance of the Blood.*—Blood oozing from the urethra between the periods of urination is of urethral origin. Fluid blood passed at the beginning of urination comes from the prostatic urethra. When the first urine passed is clear and the second portion is bloody, the source is either the bladder or the prostate. Blood evenly mixed with the urine throughout the entire specimen is of renal origin.

3. *Shape of the Clot.*—If the clot is long and narrow, resembling earth worms, it is supposed to be characteristic of renal hemorrhage. This, however, is very misleading. Large irregular clots suggest bladder origin.

4. *Facts Learned from Irrigating the Bladder.*—If repeated washings of the bladder do not clear up the blood, the bleeding is probably of bladder origin. If the fluid returns clear after one or two washings, the bleeding is probably from the kidney.

5. *Microscopical Examination of the Urine.*—The appearance of blood, or numerous hyaline and granular casts, suggest renal origin of the hematuria. The finding of the eggs of the Bilharzia is suggestive of bladder origin. Numerous crystals lead one

to suspect stone. Tubercle bacilli, when found, are pathognomonic.

*Cystoscopy.*—The difficulties of making a satisfactory examination in the presence of hemorrhage have already been mentioned. Prolonged rest, allowing only a small amount of fluid, the exhibition of sedatives, and ergot, may diminish the bleeding. If the bleeding is of bladder origin, great care must be used in irrigating. It is most important that the bladder should never be completely emptied, and only small amounts of fluid be used, injecting and withdrawing it slowly. If possible, do not irrigate more than once, and then attempt to make the examination. If the vesical neck or prostate is the source of the bleeding, examine the base of the bladder first and then the trigone. Bleeding ulcerations, tumors, and foreign bodies can be quickly detected, but the most confusing problem is to decide between the bleeding from an inflamed or ulcerated area near a ureter opening and bleeding actually coming from the ureter. Blood will sometimes settle slowly and almost invisibly over a ureter opening only to become evident as the urine swirls from the ureter and mixes with it. The mere contraction of the sphincter ureterica may produce the bleeding.

*When inflammation of the bladder is not present, the recognition of blood spurting and oozing from an ureter mouth is unmistakable.*—With each contraction of the ureter a swirl of bloody urine is ejected into the bladder and the source of the hemorrhage is established.

It happens frequently, however, that at the time of examination no blood can be detected in the urinary efflux, either due to the temporary ar-



rest of the bleeding or to the small amount mixed with the urine. In such cases there are generally characteristic appearances in the ureter mouths which attract attention. In renal varix, and renal tumors, these may be very slight. There is usually

dilated, the orifice may appear darkly congested. Stone in the kidney pelvis does not usually cause much change in the ureteral opening, but the spasmodic contractions of the sphincter are more frequent.

Tuberculous disease of the kid-

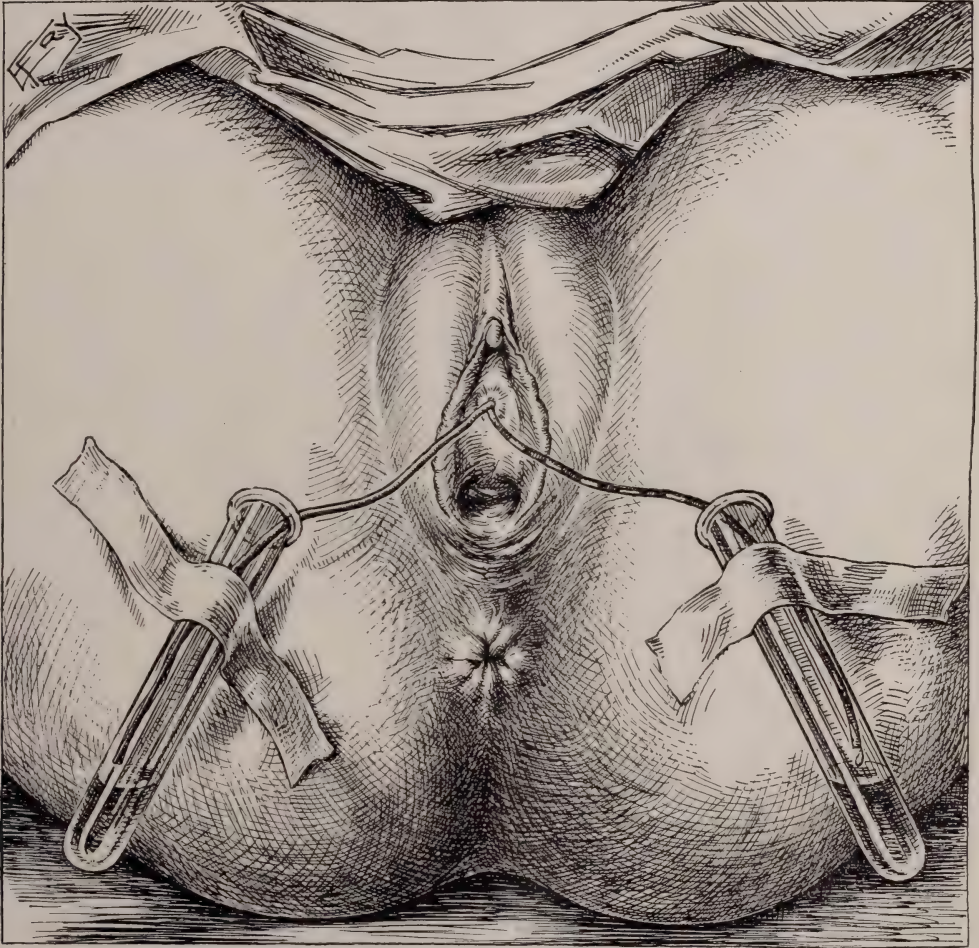


FIG. III.—COLLECTING URINE BY MEANS OF URETERAL CATHETERS.

a slight blush to the tissues, an increase in the number of vessels crossing the lips of the opening, or a few scattered vesicles, or the mucous membrane may be slightly stained with blood pigment. In renal tumor there may be a puffiness surrounding the opening. If the renal pelvis is

neously usually produces characteristic changes which are described elsewhere.

ETIOLOGY.—Renal hematuria may be caused by trauma, drugs, certain foodstuffs, and pathological conditions, the result of disease.

*Trauma.*—When the hemorrhage is due to trauma the history and the appearance of blood in the urine seldom calls for further examination; however, when the ureter has been divided, or the ureter has become plugged by a clot, blood does not appear in the urine.

*Drugs.*—The exhibition of cantharides and turpentine are the most common cause in this list. Of the foodstuffs, rhubarb, gooseberries, unripe apples, and asparagus may all give rise to hematuria.

(2) Calculus, renal tuberculosis, and congestion of the kidney.

(3) Renal varix, and angiomatous disease of the papillæ renales.

(4) Papilloma, or malignant diseases of the kidney.

#### ACUTE AND CHRONIC NEPHRITIS.

*CASE V.—Bilateral renal hematuria; Chronic nephritis.*—A woman, aged 55 years, was referred to the writer by Dr. Louria. Her only symptom was the appearance of blood in the urine, evenly mixed with it. No clots were passed. There were absolutely no other subjective symptoms. The urine contained albumin and a few casts.

*Cystoscopic examination* showed bloody

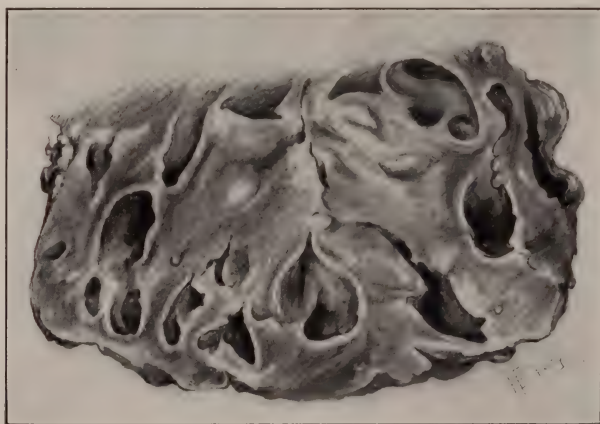


FIG. IV. APPEARANCE OF KIDNEY IN ADVANCED STAGE OF NEPHRITIS.  
THIS PATIENT SUFFERED FROM PROLONGED AND REPEATED HEMATURIA.

*Hematuria of Disease.*—As an expression of intense congestion of the kidney in malignant fevers, the occurrence of hematuria needs no explanation.

Aside from this renal hematuria may be divided into,

(1) Hematuria, without other symptoms, and

(2) Hematuria accompanied by definite clinical symptoms.

*The most common causes of symptomless hematuria are, in the order of their occurrence,*

(1) Acute and chronic nephritis.

urine coming from both ureter openings. Under medical treatment the hemorrhage gradually disappeared. It is to be noted that there was no sudden increase of the bleeding at any time, and no clots were present, showing the even distribution of the blood cells. The condition was not affected by exercise.

*CASE VI.—Unilateral renal hemorrhage. Interstitial and parenchymatous nephritis. Arterio-sclerosis of kidney.*

Patient aged 39; male; Russian. No previous history of rheumatism, tuberculosis, or hemophilia. Married fifteen years; six children; all well. Had measles when a child. Well until seven months ago, when he began to have pain in the sole of his left foot. He could not use the foot and could not sleep well on account of the continuous pain. This pain extended up as high as the middle of the thigh. The leg became cold and numb. Then the right leg



became affected in a similar manner. His arms and hands then became affected. Treatment in the hospital improved his condition so that he was able to resume his work. During the period that he was in the hospital there was some spitting of blood and nose-bleed. There was a history of specific urethritis eighteen years ago, and also a history of a small ulcer situated near the meatus which remained for two months. There was no eruption.

February 9, 1909, he noticed that his urine was red and that he was passing urine every two hours. Next day there was sudden severe pain on the right side posteriorly in the region of the kidney extending anteriorly downward to the groin. He had chills and fever. His urine was red for a few days, then there was an increased amount of urine which was normal in color for two days, when blood again appeared. Patient urinated every two hours, but there was no other symptom. He has never had a similar experience.

*Examination of the Heart:* Showed the apex beat to be normal. No adventitious sounds or murmurs. The aortic second sound accentuated.

*Arteries:* Temporal artery tortuous and visible. Brachial artery thickened and visible. Radial artery markedly thickened and tortuous. Femoral artery, thickened with visible pulsation.

*Pulse:* Small, slow, regular, and with high tension.

*Liver and Spleen:* Not palpable. *Reflexes:* Present and normal.

February 14, 1909, he had a severe attack of pain in the right lumbar region, and the muscles protecting the kidney region were rigid. There was extreme tenderness, especially at a point one inch below the intercosto-vertebral angle.

*Urine:* February 13, 1909, bloody, neutral, with large amount of albumin in proportion to the amount of blood present.

February 19, 1909. Amber acid reaction, 1015; moderate amount of albumin and few red blood cells, and a few hyaline casts.

February 20, 1909. No casts were found.

*Blood examination:* Leucocytes, 11,000; polynuclear, 79 per cent.; February 15, 1909, red blood count, 5,540,000; leucocytes, 16,000; polynuclear, 79 per cent.; hemoglobin, 120 per cent. The red blood cells are very high in hemoglobin. February 20, 1909, leucocytes, 17,000, polynuclear, 84 per cent.

*Blood Pressure:* February 14, 1909, 132 m.m. of mercury. February 19, 1909, 150 m.m. of mercury.

*Wassermann Reaction:* Doubtful.

February 20, 1909, *First Operation:* Four-inch incision two inches above the crest of ilium, and evacuation of a retro-peritoneal hematoma, extending down into the pelvis from the kidney region. This was drained. The blood from this hematoma was sterile.

March 8, 1909, *Second Operation*, by Dr. Delatour. On account of persistent hemor-

rhage from the right kidney, with no other symptom excepting a slight increase in the temperature and progressive hematuria. The right kidney was removed. Following this operation, he made a temporarily good recovery.

*Urine Examination:* March 10, 1909, clear, acid, 1,022; heavy trace of albumin, few pus cells, no red blood cells. March 12, 1909, clear, acid, 1,020; heavy trace of albumin, few pus cells, no red blood cells. Urine, April 11, 1909, cloudy, acid, 1,016, trace of albumin, few red blood cells, hyaline and granular casts. These casts were present until the end.

There developed symptoms of sepsis in other parts of the body, and April 10, 1909, an ischio-rectal abscess was evacuated.

The patient died a few weeks later of general septicemia.

Examination of the kidney which was removed showed an advanced stage of interstitial and parenchymatous nephritis associated with arterio-sclerosis.

### RENAL VARIX.

In a recent article on this subject the writer reported two personal cases of renal varix. To these, two additional cases may now be added.

*CASE VII.*—Patient referred by Dr. Harold Jewett. A man aged 50 years. Malaria and scarlet fever as a child; no venereal history. Four years previous to examination, without known cause, his urine became dark red or chocolate colored. This discoloration of the urine lasted a month or two and then suddenly disappeared, and the urine became clear again.

*Status Praesens:* The patient had been drinking heavily. In October, 1908, he noticed the return of his former condition. There was no symptom other than a large amount of blood in the urine. This was more marked in the morning on rising and cleared up somewhat as the day progressed. There was some increased frequency of urination during the day. He was very nervous and lost considerable in weight. Physical examination showed his heart to be normal, his liver enlarged, but otherwise negative.

*Examination of the urine* showed the specimen to be loaded with blood, the cells sinking rapidly to the bottom of the glass container and the supernatant fluid retaining its red color, showing the presence of free hemoglobin.

Iron and quinine were administered in various forms; in November, the fluid extract of ergot, in one-half dram dose every four hours was exhibited. At this time the urine was still loaded with blood. Two days after he began taking the ergot, the urine became perfectly clear and remained so for two days, then it was more bloody than before. This continued for a number

of days, and then, without any medication, the urine became clear again and remained so for a few days and the blood reappeared. December 10, 1908, it was clear and remained clear the 10th, 11th, and the 12th of December, then the blood reappeared and was present off and on up until April, 1909.

*Cystoscopic examination* showed blood coming from the left ureter.

The writer presented the history of the case before the Brooklyn Surgical Society and made a clinical diagnosis of renal varix.

May 1, 1909, the patient consulted Dr. Hugh Young, of Baltimore. He also found hemorrhage coming from the left kidney. He injected the pelvis of this kidney with three drams of a 1 in 500 adrenalin chloride solution. After a day or two the hemorrhage stopped, and it did not return for about ten days. He returned to Brooklyn in the same condition as before.

January 11, 1910, cystoscopic examination showed the left ureter opening normal in appearance and secreting blood-tinged urine at regular intervals. There were a moderate number of leucocytes, a few renal cells, with a few epithelial and red blood cells being excreted from the renal pelvis. Bacteriological examination of the urine from the left kidney was negative. The renal pelvis was washed out with adrenalin chloride solution in order to check the hemorrhage temporarily.

*Operation by the writer:* At the end of a week the left kidney was exposed and was found to be surrounded by a mass of fat and many fibrous bands, which bound down the kidney. These were separated with much difficulty. In order to bring the kidney up out of the wound it was necessary to resect the twelfth rib. The kidney was somewhat congested and enlarged. It was bisected along Broedel's line, and the pelvis and all of the calyces were opened. The papillæ at the upper pole of the kidney were congested and one of the lower papillæ showed on its surface a roughened, granulated mucosa, making it appear somewhat whiter than the other papillæ. After the kidney had been thoroughly inspected, and the varicose and congested condition of the papillæ noted and demonstrated to a number of the surgeons who were present, the two halves of the kidneys were brought together and sutured with two layers of mattress sutures, using No. 2 plain cat-gut. The capsule of the kidney was sutured with a separate cat-gut suture, a drain was inserted into the lower and central portions of the wound and the rest of the wound closed. The patient made an uneventful recovery, the blood disappearing from the urine within seven days after the operation.

A letter received from the patient three months after the operation stated that there had been no recurrence of the trouble, although the patient had continued the daily

consumption of a large quantity of whiskey. It is now one year since the operation, and there has not been a trace of blood in the urine since that time.

The history of all these cases is very much alike. The patient usually in good health, suddenly notices the presence of blood in the urine. There is nothing to account for its presence; there has been no undue exercise, no injury, no infection, no history of renal colic; no pus cells, epithelial elements, crystals, tubercle bacilli, or other abnormal ingredient found in the urine, other than blood, which is at first small in amount, then either increasing or decreasing, and oftentimes absent altogether; in some cases the amount of blood is influenced by exercise, while in others this plays no part. In two cases of my own, the quantity of blood seemed to be greater in the morning and to lessen as the day advanced. It occurs with varying frequency in both men and women over twenty-five years of age. Some patients have had alcoholic habits, while others have been total abstainers; in fact, there is no type of person in whom the disease has been more frequently observed. The hemorrhage may last but a few days, only to disappear and recur again after periods of weeks or months, or even years; or, again, it may be continuous from the first, causing progressive anemia.

As a rule, the urine is loaded with blood, and, at times with free hemoglobin; the blood cells are evenly distributed throughout the urine, appearing in all parts of it as it is evacuated from the bladder; clots may be found in the bladder, to be expelled at intervals; as the specimen stands, the cells rapidly fall to the bottom of the glass container; and it has been observed in my own cases that the urine



retains its reddish color after precipitation of the cells, probably due to free hemoglobin.

The urine shows no evidence of renal disease other than a reaction for albumin in proportion to the amount of accompanying blood serum, excepting where nephritis is present, a condition which of itself may give rise to hematuria, but which should not be classed with these cases.

Rarely the patients complain of pain or distress in the affected kidney or over the bladder, but it has been observed in some cases that all of the pain and discomfort have been referred to the opposite kidney. The disease is always unilateral; and no cases, so far as I can learn, have ever been reported where the disease affected both kidneys. It is true that symptomless hematuria is frequently bilateral; but those are the cases due to malaria, hemophilia, drug-poisoning, nephritis or other cause quite different from those included in the present report.

CASE VIII.—Referred by Dr. Kennedy. A man 70 years of age. Patient had had no urinary symptoms until December, 1907. At that time, after a long carriage ride, he suffered from over-distension of the bladder, and when he voided his urine a blood clot was passed and about two quarts of urine. There was no symptom of any inflammatory process, colic, etc., simply hematuria. The hemorrhage continued for some weeks, stopped spontaneously and recurred again at short intervals. During the spring and summer of 1908, the patient states that there was no blood in the urine. In September he had an attack of cystitis, which subsided. In September the blood again appeared in the urine and has been present off and on ever since. No special form of exertion seems to influence the hematuria. There has been some increased frequency of urination, more marked at night. He urinates every two hours. He has not lost flesh or vigor and feels otherwise well. There is an organic lesion of the cardiac valves, but no edema or other symptom of cardiac disease.

May 5, 1909. *Cystoscopic Examination:* About 8 ounces of residual urine. Blood appeared only at end of quantity removed

from bladder. Urethral distance about 9 inches. Some obstruction in prostatic urethra; medium clear after one irrigation. Bladder mucous membrane shows slight chronic changes, due to enlargement of median lobe projecting into the bladder. Left ureter opening normal and excreting clear urine with rhythmical contractions. Right ureter opening congested and shows a few vesicles at lower margin. The urine excreted appears to be almost pure blood, considerable in amount.

The fact that the hematuria has been symptomless, absolutely without pain, with no loss of flesh or strength and no cachexia, has existed for eighteen months and is confined to the right kidney, would suggest renal varix. Papilloma cannot be excluded. There have been no symptoms of stone. An examination of the urine for tubercle bacilli was negative. Hypernephroma would probably show a distinct afternoon rise of temperature and diminished amount of urine. Malignant disease would probably have caused some loss of strength. Before examination of this case it was supposed that the hemorrhage might be due to his hypertrophied prostate, and an operation for the removal of the gland was under advisement. This was not done, however, and the patient refused operation on his kidney. His subsequent history has not been reported.

#### MALIGNANT GROWTH OF THE KIDNEY.

In renal tumor, the hemorrhage generally occurs suddenly. It seems little influenced by exercise. There may be a single attack during sleep and then it will not occur again for weeks or months. This is especially true of carcinoma. At one time almost pure blood will be passed and the next urination will be perfectly clear.

CASE IX.—Referred by Dr. Flannery. Patient a woman aged 68. Nine years ago we removed a large fibroid uterus. The patient has been well, up until the last six or eight months. Since then she has been somewhat weak, but otherwise her condition has been normal.

January 1, 1910, she has suffered from a sudden hematuria, which came on without symptoms, excepting an increased frequency of urination. This lasted but a short time and the urine remained clear for a week. At the end of that time there was another sudden appearance of hematuria without symptoms. Examination revealed an irregular, hard tumor occupying the position of an enlarged and slightly prolapsed kidney. Cystoscopic examination showed the bladder to be normal. Func-

tional test of the two kidneys, passing the catheter into each pelvis, was made, using phenosulphonethalien. No urine was obtained from the right side, due, I believe, to reflex anuria. The urine from the left kidney flowed very slowly and the characteristic reaction of the test did not take place until thirteen minutes after the injection of the drug. In a normal functioning kidney this should take place in from seven to nine minutes. It demonstrated, therefore, that not only was the right kidney diseased but the left kidney also was not functioning normally. During the next twenty-four hours only 17 ounces of urine was passed, which bore out the above conclusion. The patient was examined again after two days, using indigo carmine, and only a faint greenish color appeared in the urine from the left kidney after twenty-four hours. Operation was advised against. The patient died three weeks later in coma.

Renal calculus is a most common cause of hematuria accompanied by pain in the region of the kidneys. Next in frequency comes tubercular disease and congestion or hyperemia due to numerous conditions, and anurism of the kidney. I will not here repeat what has already been said concerning the diagnosis of renal stone, excepting to emphasize the fact that usually the hemorrhage is small in amount. An exception to this is the following case.

CASE X.—Referred by Dr. Beasley. A printer, 53 years of age. Nine years ago was operated on by us at the Seney Hos-



FIG. V.—STONE REMOVED IN CASE X. ACTUAL SIZE.

*Calculus renal hematuria* is usually small in amount and is increased by exercise. It rarely occurs without pain. Tubercular ulceration of the pelvis of the kidney gives rise to hemorrhage only through the rupture of a blood vessel, and its occurrence is not frequent, hemorrhage in tubercular diseases being almost always accompanied by definite symptoms.

#### RENAL HEMATURIA ACCOMPANIED BY PAIN.

Renal varix, nephritis, and tumors of the kidney, seldom give rise to pain excepting that in the latter class when the tumor causes obstruction or pressure from its size, pain may occur, but it is easily diagnosticated.

In July, 1900, a hydronephrotic left kidney, with stone was removed. At that time he suffered from intermittent attacks of pain in the left side and back, lasting ten or twelve hours; at such time there would be a change in the character of the urine, but no blood. At long intervals had some pain in the right side, but otherwise has felt fine and strong.

*Status Praesens:* Accustomed to pass considerable urine; would get up three or four times at night. Five weeks ago noticed some blood in the urine which had been passed during the night; then began to have trouble; pain started on right side under the lower rib and around toward the back; was continuous for short periods, very severe, felt as though he would like to double up. Growing worse, attacks became more frequent, hands and feet began to swell. Blood was continuously present in the urine after its first appearance. Patient thought the amount of urine passed was less during attacks of pain. Amount of blood in urine increasing. Was losing strength rapidly. X-ray examination by Dr. Eastmond showed stone in renal pelvis. Operation at the Jewish Hospital, Oc-



tober 23, 1909, by the writer. Incision,  $2\frac{1}{2}$  inches to the right of the middle line of the back, starting over the lowest rib, carried down to the crest of the ileum,—exposure of the kidney, which was two and a half times as large as normal. Surface densely adherent to all the surrounding structures due to a perinephritis. The kidney within its capsule was gradually separated from the surrounding structures and brought up into the wound. The upper half of the kidney was markedly changed and showed the effect of a chronic hydronephrosis. In some places the cortex of the kidney was so thin that it was almost like parchment. The lower pole of the kidney was not as markedly diseased as the upper pole. An incision was made through the cortex of the upper pole in the middle line and there escaped a quantity

tient very sleepy and slightly irrational. Large amount of albumin found in the urine and only a small amount of urine passed through the bladder. The temperature has been subnormal, reaching as low as 93 Fahrenheit and rising again to 97. Fifth day, only 2 ounces of urine passed; patient uremic; temperature 86 Fahrenheit. Temperature being taken in the axilla, in the mouth, and in the rectum, by four different thermometers. Temperature remained between 85.6 and 88 for nearly twenty-four hours, and patient died.

*Differential Diagnosis.*—In tuberculosis of the kidney the early bladder involvement, with the finding of pus



FIG. VI.—APPEARANCE OF KIDNEY REMOVED AT AUTOPSY.

of seropurulent urine. A finger was then introduced through this opening and the calices of the kidney were found dilated. A large, solitary, smooth uric acid calculus was found in the dilated ureter, acting as a ball valve. This was easily removed.

A cigarette drain was placed into the pelvis of the kidney, a second drain between the kidney and the peritoneum, and a short gauze drain to the kidney surface and the wound was sutured. Following the operation the patient had very little disturbance. The next day he was sitting up in bed and passed 30 ounces of urine through the bladder. The second day after the operation patient felt well, was eating normally, temperature normal, and pulse normal, passed 40 ounces of urine through the bladder. Considerable discharge on dressings. Third day drain was removed from kidney; condition of the wound perfect. Patient felt well, but showed inclination to sleep a great deal. Fourth day, pa-

and tubercular bacilli, aided by cystoscopic examination, as a rule, makes the diagnosis positive. In nephralgia or neuralgia of the kidney due to congestion, hyperemia, adhesions, or malpositions, the hemorrhage is usually small in amount but is quite frequently present. In three cases of my own during the past year, the hemorrhage has been microscopical but always present. In aneurysm there is present a tumor, hematuria, and pain. Diagnosis is usually impossible unless there is distinct bruit and pulsation. In tuberculosis a large hemorrhage is rare.

## THE TREATMENT OF HEMATURIA.

### A. *If due to Trauma:*—

(1) Expectant treatment is indicated in the cases of slight injury, in which there is only moderate or transitory hemorrhage of short duration.

(2) Operation is contra-indicated when both kidneys are extensively injured.

(3) Operation is strongly advised when there is progressive recurrent or persistent hemorrhage, also, when infection has taken place.

B. *If due to Drugs or Diet.*—Removal of the cause. The same treatment is indicated as in any acute inflammation of the kidney.

C. *Hematuria of Disease.*—In malignant fever no treatment of the kidney lesion itself will avail. If due to nephritis, medical treatment will usually bring about a cure. If the conditions persist, decapsulation and fixation of the kidney is indicated. In rare conditions where the disease is unilateral and threatens life the kidney may be removed.

*Renal Varix.*—The treatment is based upon the pathological findings. Renal varix is a distinct pathological entity and may be described as an angiomatous disease of the papillæ renales whose etiology and pathology resemble that of varicocele, varicose veins of the legs, varicosities at the cardiac end of the stomach, hemorrhoidal varices, etc.

In the majority of cases, at operation, when the kidney has been bisected, no gross pathological lesions will be noted but on microscopic examination of the papillæ renales a typical angiomatous disease will be found. Nephrotomy is the operation

of choice, because it allows a thorough examination of the kidney and also for the reason that it accomplishes exactly what the operation of multiple ligation does in the treatment of varicosities in other portions of the body, in that it cuts six of the main connecting venous radicles of the kidney and in this way destroys the varicosities.

The incision should be made along Broedel's line so as to avoid injury.

Nephrectomy is indicated only when rapid and bloodless operation is demanded, or when nephrotomy fails to relieve the hematuria.

*Malignant Growth* requires the removal of the kidney.



FIG. VII.—DRAWING OF KIDNEY REMOVED AT OPERATION. THE ONLY SYMPTOMS WERE RED CELLS, LEUCOCYTES AND TUBERCLE BACILLI COMING FROM ONE KIDNEY. NO PAIN OR SUBJECTIVE SYMPTOM REFERABLE TO THE KIDNEY.

*Tuberculosis*, removal of the ureter and kidney.

*Renal Stone*, removal of the calculus and sometimes nephrectomy.

*Nephralgia*, calls for renal decapsulation, and the fixation of the organ.



# INDICATIONS FOR THE VARIOUS OPERATIONS ON THE GALL-BLADDER AND THE BILIARY PASSAGES.

## SOME POINTS ON THE TECHNIC.

By WALTER C. WOOD, M.D.

**A**LTHOUGH operations on the gall-bladder and ducts are becoming more frequent, yet there is still diversity of opinion concerning the indications for the various operations, and some differences in technic. It is to these two phases of the subject that I desire to draw attention.

The first phase may be considered by endeavoring to answer the following question:

*First.*—When should a gall-bladder be drained?

*Second.*—When should it be removed?

*Third.*—When should it be anastomosed with the intestine.

*Fourth.*—When should the common duct be drained?

*Fifth.*—When should it be anastomosed?

In primary attacks of acute cholecystitis that do not subside within about two days, drainage is advisable. These cases are easily recognized by the localization of the pain, by the rigidity of the upper portion of the right rectus muscle, by the enlarged gall-bladder, by the tenderness on pressure, by vomiting, and by the constitutional symptoms of infection. The general symptoms are usually not severe, because the gall-bladder has but few lymphatics and readily distends as its contents accumulate. If the infection, however, is severe (cholecystitis acutissima—Kehr), the general symptoms are marked because the infection spreading to the bile

ducts of the liver—a cholangitis—permits more ready absorption. This variety is indicated by a higher fever and moderate jaundice. It may be said that most of the cases of acute cholecystitis will subside within a few days by the use of purgatives, ice locally, and the withdrawal of food. This is true, but operation will, as a rule, disclose a stone in the pelvis of the gall-bladder which will be a factor in causing succeeding attacks and is not removed by medical treatment. The infection does not entirely subside and a local plastic peritonitis develops, with its resulting digestive symptoms often referred to the stomach.

The following cases illustrate the types that do not subside:

I have seen two cases of gangrene of the gall-bladder and death; also one case with local gangrene and impending perforation, saved by operation at the end of the first week. I have seen three cases—the last one in November, 1909—where the perforation was surrounded by adhesions and gall stones were found not only in the gall-bladder, but also in the local abscess outside of it. Two additional cases have made a deep impression on my mind. In the first—operation was strongly opposed by the patient and I did not urge it; but on the sixth day she went into a sudden and fatal collapse, coincident with the disappearance of the enlarged gall-bladder. In the second case—although operation was urged by another surgeon

during the second week, the physician in attendance advised against it; and when in the fourth week I was asked to operate, the man was dying in collapse coincident with the sudden subsidence of the enlarged gall-bladder and evident general peritonitis. No autopsy was permitted in either of these cases, but it seems evident that they both had perforation.

In cases of recurrent cholecystitis, I am of the opinion that the gall-bladder should be drained and not removed, provided always that there is bile in the gall-bladder proving a patent cystic duct or that a probe can be passed through the ducts after all the stones are removed. Unless this duct is open to provide for the escape of the mucus secreted by the gall-bladder and the common duct also patent, the abdominal wound will not permanently close. I am aware that we are not all agreed on this point of leaving the gall-bladder in these cases. For example:—Johnson in his recent work on surgical diagnosis writes as follows: “Personally during the last ten years, I have removed the gall-bladder in most of my cases except when the condition of the patient permitted only a very short operation, or when inoperable malignant disease existed, or where the patient was so profoundly cholemic that death from hemorrhage was feared, or where the mechanical conditions—such as perforation of the gall-bladder with abscesses in the vicinity—rendered the operation impractical.”

On the contrary, Mayo Robson states that, “Cholecystostomy is a very safe and efficient operation and if the ducts are cleared there need be no fear of fistula or of recurrence of gall stones—cholecystectomy is unnecessary in ordinary cholelithi-

asis.” The practice of W. J. Mayo agrees with Robson and in his article entitled “A Review of 1,500 Operations upon the Gall-Bladder and Bile Passages,” he says: “Looked at from the standpoint of mortality, cholecystostomy is the safest for the average case and must be considered the normal operation.”

My reasons for leaving the gall-bladder do not include a belief that it is important as a reservoir for bile from which, to quote the older physiologies, “it is poured out copiously during digestion.” It holds on the average one and one-half ounces. While the liver secretes from thirty to forty ounces daily. The idea of a reservoir seems absurd. Again, patients from whom the gall-bladder has been removed suffer no inconvenience. It does, however, afford a most convenient method of attaching a drainage tube and thus providing efficient drainage for the liver. It is a recognition of the importance of this drainage that has made biliary surgery safe. If we remove the gall-bladder, we must either attach the drainage tube to the patent cystic duct, or close the duct.

In three of the cases where I have removed the gall-bladder and the cystic duct was open, I have had unfortunate results. In one, the duct was sutured with care, but leakage occurred and death resulted. In one, a tube was sutured to the duct but became detached during restlessness following the anæsthesia, and death ensued. In the third case, the tube was also sutured to the duct, but leakage occurred the second day and an extensive peritonitis followed from which the patient made a slow recovery. While such experience has not been uniform at my hands, yet I have



ceased doing a cystectomy when the duct is open.

On the contrary, I do not recall a single case where I have regretted leaving the gall-bladder, provided always that the duct was open.

In cases where the common duct has been opened, to drain the biliary system by a tube attached to the gall-bladder is also, I believe, the correct procedure.

So far, I have not yet seen a case requiring common duct operation, where the cystic duct was closed by anything except stone. If the cystic duct is closed by stricture, nothing could be gained by leaving the gall-bladder, because drainage through it would be futile and it could be removed with safety above the cystic closure without fear of leakage.

The indications for cystectomy should be very definite. Circumstances may permit the easy removal of the gall-bladder, when, for example, it is not bound by adhesions to the surrounding viscera. Then the operation is safe. Under such conditions I would remove it always when the cystic duct is closed by scar tissue resulting from previous attacks of inflammation. These are usually cases with a history of many acute attacks and the gall-bladder contains many stones and is somewhat enlarged.

However, more of these patients who have had many attacks present a very small gall-bladder bound down and concealed by many adhesions. In these cases it is difficult and somewhat dangerous to remove the gall-bladder, yet drainage alone will not cure the symptoms nor is the sinus apt to close. A cystectomy, even, fails to relieve the chronic pain due to adhesions about the duodenum, unless these can be

destroyed and prevented from returning. Some of these small gall-bladders have no stones and the adhesion may have first arisen from ulcer with compression on the cystic duct and secondary cholecystitis. Here a stomach and not a gall-bladder operation is indicated. Perhaps in some patients, both operations may be indicated but I have never done them together. If adhesions prevent a satisfactory cystectomy, I have several times done a partial operation and destroyed the remaining mucous membrane with the cautery, or dissected it out. These patients have been improved, but in some that I have been able to follow there has not been a perfect relief.

We occasionally see a hydrops of the gall-bladder, where the organ is much enlarged, extending even to the pelvic brim, with thin walls and filled with clear mucus. Here a single stone or scar tissue obstructs the duct. As there are few or no adhesions, cystectomy is easy and the thin abundant tissue permits a complete closure of the cystic duct. Primary cancer of the gall-bladder would warrant a cystectomy if the disease was confined to that organ. I have seen but three cases; in one of which I was unwise enough to drain, causing a discharging sinus for six months preceding death. The other two were diagnosed without opening the gall-bladder, by evidence of the growth on its peritoneal surface, and were not opened.

Concerning anastomosis of the gall-bladder to the intestine, there can be but one indication, viz.: irremovable obstruction of the common duct. This obstruction exists only in enlargements of the head of the pancreas, either chronic inflammation or car-

cinoma, and in stricture of the common duct resulting from cholelithiasis. This latter condition, I have not seen. But in operating for chronic obstruction of the common duct and in finding an enlarged pancreas, one must search with care for stone in the lower portion of the duct before assuming that the enlarged pancreas is the cause and not the sequence to such obstruction. While in any case a single stone in the ampulla vater may exist, yet it is much more common to find other stones in the more accessible portions of the ducts. Such evidence may lead one to the correct conclusion. On the contrary—one or more enlarged lymphatic glands along the course of the duct may, until well exposed, simulate stone. I have recently had an example of this condition. It is probable that stone cannot be absolutely excluded without making an incision into the common duct and the passage of a probe from the point of incision into the duodenum. Yet the history of the two conditions, in relation to the onset of pain, recurrence of the same and the type, intensity and uniformity of the jaundice, differ materially. Examinations of the stools for pancreatic indigestion and of the urine for crystals show merely the fact of pancreatic insufficiency and shed no light on the question as to whether it is secondary to stone, or primary.

In a certain proportion of these cases with enlargement of the head of the pancreas, it is difficult to determine, even with the hand in the abdomen, whether this enlargement is inflammatory or malignant. Often the gland is so hard and nodular that it is easy enough, yet surgeons of wide experience have made mistakes, usually by considering a hard fibrous pan-

creas to be carcinoma, a diagnosis not confirmed by the subsequent clinical history.

The possibility of a cure of chronic pancreatitis by drainage of the bile ducts, occurred to Robson in 1891 and 1892, when these cases recovered after simple cholecystostomy, provided the drainage was prolonged. I have some such patients who were drained this way and so far the results are satisfactory clinically, but they still show the Cammidge reaction. These cases were drained for a month or more. However, it seems to furnish no reliance for a permanent cure and the convalescence is slow.

On the other hand, the anastomosis of the gall-bladder to the intestine, is easy of performance, gives a quick convalescence and speedy disappearance of the jaundice. It has been done, using the duodenum, stomach, jejunum and transverse colon with satisfactory functional results and no infection of the bile passages from the intestinal tract as might be feared. Of course, the first location seems wisest from the physiological standpoint. I have done this operation but twice; once for chronic pancreatitis and once for early carcinoma, but feel that it is worthy of more extended performance.

The indications for operation on the common duct are very definite. In the first place it may be said, that it should not be done during an acute closure due to stone. This condition is well indicated by the intense jaundice, colic, vomiting, chills and fever. Morphine, atropine and hot applications externally, with saline by the rectum (The Murphy drip method), is the safest treatment. Operation is dangerous, for an acute infection in the hepatic ducts is present which



leads to infection of the operation tract and also may result in suppression of the bile—a condition ending fatally if the secretion is not established within about two days. It is also well proven that in cases of chronic closure of the common duct by stone, the periods when the jaundice is the least acute are the periods of election for operative relief. This fact is well illustrated by the statistics of the Mayo clinic, where a mortality of only 2.9 per cent. was obtained, when acute symptoms were absent; but 16 per cent. mortality resulted when active infection was present, and 34 per cent. in the small proportion of cases when the complete obstruction was continuous and intermission of acute symptoms was not obtained. In fact, it seems wise to wait weeks in the hope of obtaining a relief, rather than to operate during profound jaundice and remittent febrile symptoms. In three common duct cases during the past year, when I operated during the quiescent stage, recovery was very satisfactory; while in a previous case where I had not the courage to wait for the subsidence of the acute stage, death resulted.

The anastomosis of the common duct with the duodenum, I have not had occasion to do, but would not hesitate to do so if it was found to have an irremovable obstruction, for example, a stricture, and at the same time the gall-bladder was so contracted that it could not be employed for the purpose. In such a case one would find an enlarged common duct. The few reported cases are very encouraging.

The points in technique that I desire to mention are:

The use of urotropine.

The position of the patient.

The incision.

The drainage tubes.

The inversion of the gall-bladder in cholecystostomy.

The Murphy drip.

While the use of urotropine in genito-urinary infections is general, the fact that soon after its ingestion by the stomach, formalin can be detected in the bile and also in the cerebro-spinal fluid deserves further emphasis. The indication for its use in fracture of the base of the skull which are so frequently infected has been recently suggested by Cushing. Its use in biliary surgery was introduced by the surgeons at Johns Hopkins after investigations by S. J. Crone, of the pharmacological laboratory. Seventy-five grains per diem by the mouth markedly reduces and in many cases removes entirely the organism previously found in the bile of an acute cholecystitis. It is equally indicated as a preliminary medication in chronic cases preceding operation. I have used it as a routine measure during the past year and believe in its usefulness.

The position of the patient in cholecystostomy is immaterial, but for operations on the ducts, the importance of elevating the upper abdomen, so that the patient's body is bent at an angle, cannot be overestimated. This was noted by J. W. Elliot in the early days of gall duct surgery, fifteen years ago, when it was thought wise to suture and not drain the ducts. In this position, the intestines fall toward the pelvis so that extensive packing is avoided, the abdominal wound is opened up and can therefore be shorter and the ducts are brought nearer the surface. In fact, in a thin person, I have seen the common duct at the skin level.

In the absence of the special table with the adjustable bridge devised by Lilienthal, a sand bag sixteen inches in circumference can be used. The patient should be flat before suturing the abdominal wound, so that the tension may be relieved.

The incision that I have found most useful is that devised by Bevan. At first this is made longitudinally through the outer third of the rectus muscle. If it is necessary to palpate the ducts, as is usually wise, it should be long enough to admit the hand. In acute cholecystitis it may be inadvisable to break up adhesions and spread the infection, and therefore a smaller incision may suffice. But if operation on the ducts is required, the original incision is supplemented by cutting across the upper end of the inner portion of the rectus muscle, on a line with the costal margin as far as the mid-line. If this does not give room enough in a stout person, the aponeurosis in front and behind the outer portion of the rectus muscle at the lower end of the original incision can be cut and the muscle retracted. It is then well to grasp the right lobe of the liver and bring it out through the incision. In this way the common duct is brought readily to the surface and the operation completed with great ease.

The drainage tubes are important. If the one for the gall-bladder is covered with several layers of gauze and then surrounded with rubber tissue, the encircling sutures depress a groove in it and make a water-tight junction. In common duct cases, a rubber tube with lateral openings near

its end is stitched into the duct and both tubes connected with eight ounce bottles, placed between the inner and outer binders. The bottles require emptying about twice in twenty-four hours. A third tube, also dressed with gauze and rubber tissue, is carried into the pouch over the right kidney to provide for any possible leakage. This last tube is removed about the third day and the others at the end of a week. In stitching the tube into the gall-bladder, that organ is inverted when pliable, so that peritoneal surfaces will come in apposition when the tube is removed and complete healing will occur in three weeks or less, the tedious sinuses of the older method being avoided.

While the use of saline by the rectum, by the continuous drop method devised by Murphy, is useful in many cases to overcome shock, relieve thirst and stimulate all secretions—it has special usefulness in all gall-bladder operations. When it is remembered that the portal circulation directly connects the liver with the intestinal tract, it will be seen how readily the flow of bile is increased by the use of saline in the rectum. When it is also recalled that one, if not the chief cause of death, in infections of the bile tract, is cholangitis and suppression of the bile, the influence of this simple adjunct in the post-operative care of these cases in reducing mortality can hardly be over-estimated. During the past year it has been a routine procedure in our cases and has, I think, been a feature in obtaining a list of eighteen cases without a fatality.



## TYPES OF MOVABLE KIDNEY.

By JOHN OSBORN POLAK, M.Sc., M.D.

BROOKLYN, NEW YORK.

**L**OOSE kidney is a comparatively frequent complication in the patients presenting themselves, for gynecological examination. In one hundred private records, taken at random from my case histories, twenty-three had a loose and palpable right kidney, though but five presented any symptoms referable to the movable kidney.

This observation is fully in accord with those of Reidel, Harris, Edebohls, Morris and others, who found that 20 per cent. of all gynecological patients present a loose kidney, if one's examination is sufficiently thorough.

A movable kidney, is one which moves with abnormal freedom behind the peritoneum. Three degrees of this abnormal mobility are observed, first, when the kidney moves up and down, so that the lower half comes between the fingers of the two palpating hands during deep inspiration. This amount of mobility may be elicited in a large proportion of tall thin women, who have borne children, if the examination is made in the bicycle posture. The majority of these patients have associated some degree of visceral ptosis.

The second degree, is when the greater part, or even the whole kidney, can be grasped during a deep inspiration, but ascends during the expiration. The third degree, is when the greater part, or even the whole of the kidney, descends below the examiners fingers, and can be retained in this position, while the patient makes a full expiration.

The right kidney is thirteen times more movable than the left. This is readily accounted for, first, by its low position, and the length of the renal vessels on the right side, and second, by the hepatic pressure from above. Besides moving vertically and laterally, the kidney may have a rotary excursion, either around its transverse axis, through its hilum, or around the vertical axis.

When the rotation moves around the transverse axis, the lower pole usually swings inward and forward, which necessarily kinks or twists the ureter, and gives rise to obstructive symptoms, while simple vertical mobility may give more or less lumbar pain, fatigue, gastro-intestinal symptoms; it is the kidney that has a rotary excursion which most often produces the pathological kidney.

The peritoneal covering may be sufficiently loose to allow the kidney to drop below the brim of the pelvis, or even against the abdominal parietes, it will be seen therefore, that a kidney without a mesonephron, may have as wide an excursion, as one which is congenitally floating.

It has been my observation, that the build of the patient has much to do with the mobility of the kidney. Women of the type mentioned by Glenard, in his elaborate work on enterptosis, and Harris in his study of shallow renal fossæ, almost always present some degree of nephroptosis, yet few of these women suffer from symptoms which are directly referable to a loose kidney, and we may fix the kidney by any of the operations

which have been suggested for this purpose, without effecting a cure of the woman's symptoms.

My own experience leads me to believe, that patients who consult the surgeon for symptoms referable to a loose kidney, and are relieved by nephropexy, are few, and that they are usually free from general abdominal ptosis, it is therefore apparent, that in order to cure patients, whose kidneys have more or less extensive excursion, we must differentiate the ones in which the symptoms are directly due to the mobility, from those in which are consequent upon associated lesions.

Nephroptosis may, and does often follow upon, sudden, severe and continuous strains, as lifting heavy weights, traumatisms, rapidly repeated pregnancies, or any disease which produces rapid emaciation, provided the renal fossæ, are such as to favor kidney dislocation. Only those women having shallow renal fossæ, can acquire mobile kidneys.

The truth of this statement has been verified by me, in more than two hundred examinations, and is in accord with Harris's deductions. To determine the congenital presence of shallow fossæ, we measure the distance from the supra-clavicular notch, to the top of the symphysis (pubis) and divide this measurement by the smallest waist circumference, if the resultant is less than .74, the kidney will not be found palpable, while if it is .77 or more, some degree of excursion is always observed, or it may readily become loose, from any of the exciting causes mentioned above.

Such a kidney, if unassociated with ptosis, of other abdominal organs, may be held in position by a nephropexy, but if it is associated with lax abdom-

inal walls, diastasis of the recti muscles, or a pendulous abdomen, nephropexy alone will fail, and must be combined with anterior fascial lapping, or corset or binder support, to secure entire relief of the symptoms.

In a comparatively recent paper, Harlan of Cincinnati, has briefly summed up, the possible operative indications of dislocated kidney. First, cases which present periodical crises, gastro-intestinal, renal, hepatic or appendiceal colic, associated with chronic recurrent headaches, which are relieved by the recumbent elevated foot posture, this class of women are benefited by nephropexy.

Second, where we find associated with a loose kidney, postural albuminuria, that is when the albumen occurs with a loose kidney, in a patient in the upright position, but disappears or diminishes without treatment, when the patient is placed at rest in the recumbent position. Third, the kidney which is the seat of recurrent hydro-nephrosis, with its attendant renal pains and colics, which symptoms are relieved by the recumbent position, such a kidney justifies operative intervention. Fourth, when the patient suffers from persistent lumbar dragging, or colonic backache, which is unrelieved by medicinal treatment, or the use of a proper abdominal support, some surgical means to retain the kidney is desirable.

Finally, a kidney which is associated with appendiceal irritation, congestion or inflammation, or produces by its mobility, stricture or partial occlusion of the bowel, or bile tract, or anterior visceral adhesions, cannot be relieved without surgical intervention.

We have observed clinically, that a



slight inward dislocation of the lower pole of the left kidney, may occlude the ureter to such a degree, as to not only produce repeated Dietls crises, but may persist unrecognized, because of the difficulty of palpating the left kidney, owing to the high normal position of this organ, until definite pathological changes are produced in the organ itself. The possibility of this clinical fact must be kept in mind, in the differential diagnosis of left sided abdominal lesions.

Great mobility leads to flabbiness and softness of the renal tissues, due to sacculation of the calyces from moderate retention, or beginning hydronephrosis, following upon ureteral twists and kinks, without giving any clinical signs of actual renal enlargement.

A case illustrating these changes, with occlusion of the bile tract, and anterior renal adhesions, is the following:

Mrs. W., aged 48, married 22 years, the mother of two children, the youngest 21. Was operated twenty years ago, by the late T. Gaillard Thomas, for cystic degeneration of the ovaries. Both were removed.

For ten years following this procedure, she enjoyed good health, but for the past seven years she has complained of more or less digestive disturbance, characterized by sharp attacks of pain in the right hypochondrium, associated with vomiting and tympany. Varying degrees of jaundice have occurred with most of these attacks.

A prominent general surgeon saw her in one of these attacks and made a diagnosis of gall stones. A cholecystostomy was made, but no stones or inspissated bile found, and attacks of right-sided pain continued.

When seen by the writer in consultation, July, 1908, the patient had taken a long motor ride, and while returning home was seized with intense abdominal pain, referred to the right hypochondrium. She vomited, had frequent urination, and was in a state of moderate collapse. A moderate conjunctival jaundice was present. Large doses of morphia failed to make her comfortable. The abdomen was distended, the pulse low, weak and compressible, and the desire to urinate almost incessant.

Examination at this time was impossible, owing to the exquisite sensitiveness of the

abdomen. When seen a week later, after the intestinal tract had been emptied with castor oil, the diet restricted to buttermilk, and she had had enforced rest in bed, in the elevated foot posture, palpation of the right kidney area was tense and tender. The ureter could be traced by its tenderness to the pelvic brim. The urinary examination showed a moderate albuminuria. No casts were present, but an excess of oxylate crystals. Again, no mobility of the kidney could be made out, owing to the abdominal tension.

When seen again, a few days later, the right kidney could be distinctly made out, movable, tender, but not appreciably enlarged, having a vertical excursion, which permitted its descent to the pelvic brim, and laterally to the median line. There was also distinct tenderness over Mayo-Robson's point. A radiograph showed no shadow. Catheterization of the renal pelvis, by Dr. Paul Pilcher, released several drachms of turbid urine, and relieved the kidney tenderness. Instillations of a few minims of an argyrol solution caused an attack of colic.

In November, 1908, I made a lumbar incision, and exposed an enlarged, softened and congested kidney, with a dilated pelvis, freely movable, except for firm anterior adhesions. The kidney was decapsulated, and suspended by its freed capsule, after the method of Edebohls, to the lumbar fascia and muscle. The recovery was prompt and permanent, no further attacks of colic, jaundice or albuminuria have occurred.

The following case illustrates a movable kidney, associated with general ptosis:

Mrs. R. C., aged 28, poorly nourished, married, four children, youngest 17 months ago. All were long labors. Has not been well since birth of third child. Soon after she began to have a dragging pain in the right side, frequent urination when on her feet, constant gaseous distension, and complained of bearing-down, lumbar and sacral backache, and entero-colic catarrh. Sharp attacks of abdominal pain, and vomiting when on feet, alternating diarrhoea and constipation, with constant mucus discharges.

Physical examination: The patient was anemic and poorly nourished. The abdomen was pendulous, with marked diastasis of the recti, permitting extensive eventration of the intestines. In the recumbent posture, we could note the peristaltic motion of the intestine through the thinned-out abdominal wall.

The right kidney had a vertical excursion to the pelvic brim on deep inspiration, and did not recede on expiration. There was marked tenderness in the region of the appendix. The stomach and transverse colon were below the umbilicus. The uterus was retroverted and prolapsed, and there were extensive lacerations of the pelvic floor.

In June, 1909, after thorough preparation, and a few days in the recumbent elevated foot posture, the pelvic floor was repaired, the uterus curetted and retained in its normal position in the pelvis, by a Baldy-Webster operation, *i. e.*, passing the folded round ligaments through the broad ligament, and under the utero ovarian ligaments, and uniting them behind and below the fundus.

The recti were then freed from the fascia and the umbilicus excised, and the dissection carried from pubes to the ensiform. The posterior fascia was then united with mattress sutures of fine chromic gut. The recti were then united in the median line and the anterior fascial coverings overlapped from the pubes to the ensiform, and with mattress sutures, supported by deep silkworm gut bolster stitches, a long elliptical piece of the overlying abdominal wall was excised, to diminish the size of the pendulous abdomen, which this unfortunate woman had carried.

The recovery was uneventful, and the renal ptosis, with its symptoms, as those of the general ptosis gradually disappeared, as the patient gained strength on rest, food, tonics and fresh air.

My final case illustrates a floating kidney with wide excursion, with no associated lesions.

Mrs. K., aged 26, married five years, mother of three children, youngest 14 months old. She had felt perfectly well until her first baby was about 8 months old, when she had a sharp attack of abdominal colic, referred to the right hypochondrium,

which was followed by tension and tenderness over the kidney. This subsided with a few days' rest in bed. Her second attack occurred August, 1908, coming on without warning, being sharp and severe.

In the interval, between the first and second attacks, and since that time, she has presented no abdominal symptoms referable to the mobile kidney. Her last menstruation was two weeks before the time she presented herself for examination. She was of the twenty-eight day type, flowed for six days, and had no menstrual pain. There was no vesical or urinary symptoms. Her bowels were irregular.

On examination we noted that she was very tall, her Harris measurement amounted to .81. The right kidney had a vertical excursion as far as the pelvic brim, and a lateral excursion to one inch past the median line. With the patient recumbent there was a slight laceration of the cervix and perineum. There was no general ptosis. The uterus was antileflexed and retroposited. This patient was operated on May 4, 1909, at which time a right nephropexy, curetting and perineum was done. Her recovery was complete and satisfactory.

These three cases illustrate types of nephroptosis, which have benefited by some form of surgical intervention, and yet I feel, as I stated in the beginning of these few remarks, that only when the loose kidney presents or produces a tangible lesion, should nephropexy be resorted to.

## INTRACTABLE HEMORRHAGE OF THE UTERUS.\*

By WILLIAM P. POOL, A.M., M.D.,

BROOKLYN, NEW YORK.

THE following cases illustrate two distinct conditions in which continued and uncontrollable uterine hemorrhage occurred, and in which the causes might appear to be widely separated.

CASE I.—Age 25. Married two years. No pregnancy. Menstrual history began at 13 years, and was normal, of the twenty-eight day type to the age of 20, during which time the patient was in good health. Then the flow began to increase in quantity and the intervals grew shorter, till hemor-

rhage became continuous. She was curetted and obtained relief for a short time; no pain. There were six curettings within five years, with a repetition of the same experience. The last of these the writer performed and had the scrapings examined. The pathologist's report was: Extensive round cell infiltration, and capillary engorgement of the endometrium. Metrorrhagia ceased for three months following the last curettage, during which time she menstruated normally and felt well. Then bleeding began again with a menstrual period and continued. This went on for three months, when she again applied for relief. There had been a considerable loss of weight, and she was anemic, weak and easily exhausted. Pulse rate much increased by slight exer-

\* Read before the Brooklyn Gynecological Society, January 7, 1910.



tion. Heart and kidneys were normal. The hemorrhage was slight but continuous. The uterus was in good position, movable, and slightly tender. It measured three inches by the sound. The adnexa appeared to be normal. There was no pain. In view of her past history and failing health hysterectomy was advised and accepted. I removed the entire uterus by the suprapubic route, leaving both ovaries, which were macroscopically perfect. Other pelvic structures seemed entirely normal. The uterus felt slightly soft and spongy, but might easily have passed for a normal organ. Histological examination showed that not only was there round cell infiltration in the endometrium, but that the same condition prevailed throughout the uterine muscle. Its vessels were slightly thickened, though their lumen did not appear to be decreased. The capillaries were engorged. Convalescence from the operation was prompt and there was an immediate improvement in health. Six months later the patient had gained 20 pounds. She is now, after more than two years, in perfect health.

CASE II.—Age 45. Married twenty years, three children—first delivery instrumental, others normal. Menstruation began at 14. All pelvic functions had been normal to within three years of the present time. Then menorrhagia began and gradually became metrorrhagia. Hemorrhage was slight and continuous. There was no pain, but a gradual loss of weight and increasing weakness. She had been twice curetted, with only temporary relief. When first seen by me her general condition was poor, and showed the effects of prolonged blood loss. There was no organic disease of heart, kidneys or liver. Locally there was a moderate laceration of pelvic floor, and extensive bilateral laceration of the cervix, with deposits of scar tissue. Bleeding was slight, but was increased by manipulation. The body of the uterus was in normal position, but somewhat enlarged in all dimensions. The cavity measured 4 inches in depth. Adnexa were movable and normal to the touch. The duration of the complaint (three years), together with the present findings, seemed to preclude malignancy, but hysterectomy was advised as the shortest means of stopping the hemorrhage—and this was imperative. Upon operation the pelvis, aside from the uterus, was found to be quite normal in appearance. The uterus was considerably enlarged, though its consistence did not seem to be greatly changed. It was removed entire, the ovaries being left. Recovery here also was prompt, and gain in weight and general improvement satisfactory. Histological examination showed hemorrhagic infiltration of the endometrium, and extensive changes in the uterine muscle and vessels. These consisted of an increase in fibrous tissue of the uterine wall at the expense of the muscle cells, and a thickening of the walls

of the blood vessels. The changes in the arteries affected their outer coats particularly. The whole organ was in a state of chronic congestion, though there was no evidence of a present inflammation.

Menorrhagia and metrorrhagia are of common occurrence and can almost always be accounted for clinically, either by some cause outside the uterus, such as renal, cardiac, or hepatic disease, or inflammation of the pelvic adnexa, by which the uterine circulation is secondarily affected; or by a cause in the uterus itself, as subinvolution, displacement with chronic congestion, or neoplastic growth. But from time to time, cases of persistent uterine hemorrhage are observed in which none of these pathological conditions can be found, which resist medicinal and therapeutic measures, and which receive only brief relief, if any, from minor surgical treatment. The causes are difficult or may be impossible to determine by clinical examination. It is obvious that the source of the hemorrhage must be in either the endometrium or the myometrium. When due to fungous overgrowth or chronic congestion of the endometrium alone, there is usually little complication, and in most cases hemorrhage is controlled by a thorough curetting. But that the lesion is more deeply seated in other cases is borne out by the fact that histologic examination of scrapings reveals nothing abnormal, or that the symptoms are not greatly modified by repeated curettings. What this affection of the myometrium may be, has been the subject of considerable controversy, and in the past decade a number of writers have advanced theories, no two of which are in complete agreement.

As long ago as 1860 Scanzoni

described a condition of the uterus which he designated "chronic metritis," the pathological process of which he divided into two totally different stages. The first stage, that of inflammatory infiltration, is characterized by hyperæmia, œdema, and general enlargement and boggiess of the uterus, while in the second, or stage of induration, the uterus is anemic, small and hard, and its vessels thickened and reduced in caliber.

Many years later Reinecke, investigating this lesion, concluded that there is a primary chronic metritis without any clinical sign of inflammatory reaction in the uterus or its neighborhood, and with an entirely normal endometrium. Palmer Findley agreeing with this opinion has stated that "it is granted that infections of the uterus are located primarily in the endometrium and may not extend to the myometrium, but a condition which we are pleased to call 'chronic metritis' is a very common one, and is frequently independent of infection and primarily in the muscular wall of the uterus."

Addinsell's observations have led him to deduce that there exists a chronic metritis which can be recognized in three stages: (1) round cell infiltration; (2) intermuscular fibrosis; (3) degeneration of this fibrous overgrowth. The inflammation, he believes, is always due to infection of one kind or another, which enters through the endometrium, but he admits that after diligent search he has been unable to discover any micro-organism in the specimens he has examined.

Cases reported by these and other writers set forth the picture of a pathological process, the dominant symptom of which is hemorrhage,

whose source is obscure and whose causes and ultimate results are so diverse that they lead to confusion of ideas and doubt as to whether there be only one or more than one distinct lesion. The changes found vary from simple round cell infiltration and hyperæmia, to extensive degeneration of the musculature, hyperplasia of the fibrous elements, and the formation of new fibrous tissue, and thickening and hardening of the vessel walls. Evidences of inflammation, present or past, have been specifically mentioned in the great majority of recorded cases, and it is a question whether inflammatory change may not be responsible for the conditions which cause hemorrhage in all cases.

According to Anspach, the consensus of opinion is that there are two forms of chronic metritis. One that is insidious and more or less chronic from the start, which follows or is associated with general pelvic congestion from displacement, chronic constipation, subinvolution, etc., and in which there is engorgement of the vascular channels of the uterus, and œdema, and hypertrophy of both muscle and connective tissue. The other form begins as an acute infective inflammation, with hyperæmia, œdema and sero-sanguineous or purulent infiltration. The whole organ becomes large and soft and its vascularity is increased. Resolution may occur with little or no change in the tissues, but if the inflammation has been so severe as to destroy the structures of the uterine wall, such tissues are replaced by a fibrous growth, which on contracting makes the uterus smaller and harder than normal. The infectious organisms which were the cause, may be destroyed in time, but the inflammatory exudate remains for



an indefinite period and by its irritation causes an excessive growth of intermuscular connective tissue.

In both these forms the lesion may extend to the blood vessels, and the sclerotic changes in their walls have been regarded as the immediate cause of hemorrhage by some writers. The term *apoplexia uteri* applied by Von Kahlden and Herxheimer to certain cases of hemorrhage indicates a rupture of the hardened arteries, and direct bleeding into the uterine tissues, but this view is apparently disproved by the fact that in no reported case of *metrorrhagia* has histologic examination revealed a ruptured vessel.

To what extent arteriosclerosis is responsible for uterine hemorrhage, is somewhat problematic. A large proportion of these hemorrhages occur at or about the time of the menopause, and in many of the uteri examined for this cause, senile changes had already begun. It is well established that there is a normal degeneration of the vessel walls at this time, which consists of a thickening of all three coats and a narrowing of the lumen. These changes have been found unconnected with hemorrhage in many cases, and there can be no doubt that what has been designated "arteriosclerosis" has often been only a normal condition of the vessels at this time of life.

Involution of the uterine arteries after pregnancy also brings about a change in their coats, and it has been noted that there is an increase of elastic tissue in and about the vessels which is in direct proportion to the parity of the uterus, also a slight fibrous thickening of the adventitial coat which increases after each pregnancy. These normal conditions have probably been mistaken in some cases

for true arteriosclerosis and so recorded.

The general opinion of present day writers is that arteriosclerosis of the uterine vessels does not exist except when associated with a similar condition in the general vascular system, as in advanced disease of the heart or kidneys, or as a result of senile change or child-bearing—that it may predispose to hemorrhage but is not the chief or exciting cause.

Theilhaber, Meyer, and Findley have believed that the principal cause of hemorrhage is found in a deficiency or destruction of the muscle cells of the wall, and a consequent loss of contractility. But normal atrophic change of a similar character occurs at the menopause. The whole organ shrinks and becomes harder and microscopic, examination shows a relative increase in its fibrous tissue which may be mistaken for a pathological fibrosis. But, if these changes be superadded to a real fibrosis, the result of long continued inflammation, in which there is both a destruction of muscle cells and an overgrowth of fibrous tissue, there are present all the factors which make for continued and intractable hemorrhage. Macdonald has suggested that cases of hemorrhage only becoming evident at the menopause, have probably had their origin in circulatory troubles, the congestion having lasted perhaps for years previously, without giving rise to any troublesome symptoms. The normal arterial degeneration affects all the coats of the vessel and tends to decrease the blood current, but it has been observed that inflammatory thickening has been confined chiefly to the media and adventitia, and that the vessel caliber is often unaffected.

If, then, there be a normal blood

supply with thickened and imperfectly contracting arteries and deficient supporting power in the muscular wall, the result is hyperæmia and capillary engorgement. Obstruction to the out-flow of blood may also contribute to such engorgement, and Murray states that this is found in the majority of cases of chronic metritis. He believes that the veins suffer more from the process than the arteries, that their flaccid walls are more easily collapsed, and their lumen encroached upon by inflammatory products, and that blood is thus dammed back upon the capillaries.

Another ingenious theory as to the cause of hemorrhage has been offered by Macdonald: that it may be due to abnormal ovarian stimulation. She refers to the mysterious influence the ovaries exert upon the menstrual function, and the frequent irregularities in this when the ovaries are the seat of any disease, even simple cystic degeneration. This idea has been combatted by Anspach, who after analyzing a series of cases of ovarian cyst declares that in no uncomplicated case was uterine hemorrhage a prominent symptom.

Of the two cases of this report the second may readily be explained on

the basis of chronic inflammatory change which may have originated in infection, and have been primary in the endometrium; and that the process was aided by the changes of the menopause. But the origin of the trouble in the first case is not so easy to determine. Hemorrhage began in a healthy virgin at the age of twenty and careful examination of her history failed to reveal any infection or lesion that might have been a causative factor. If inflammation existed in this uterus from the outset it would seem to support the theory that chronic metritis may be primary and may occur without infection. The changes found in the endometrium may be referred to the repeated curettings, but it must be remembered that her first and only symptom, hemorrhage, began before any such interference had been practiced.

It is suggested that these cases represent merely different stages of the same morbid process, in which the clinical manifestations are uniform, and that the differences in histologic findings are accounted for by the degree and duration of the disease.

147 Clinton Street.



## LONG ISLAND MEDICAL JOURNAL

A Forum for the Discussion of all Topics involving the Medical Profession and especially that of Long Island.

EDITOR-IN-CHIEF

PAUL MONROE PILCHER, A.M., M.D.

ASSOCIATE EDITOR

JAMES MCFARLANE WINFIELD, M.D.

EDITORIAL OFFICE :

145 GATES AVENUE, BROOKLYN, N. Y.

Further Information on advertising page 3

JULY, 1910.

### THE DOCTOR'S TRUST.

**S**MARTING under the lash of the local department of health, limited in their activities by state laws which demand a sufficient education, and suffering from exposure following the enforcement of the Pure Food and Drugs law, those ill-advised, vampire-like practitioners of "treatment" have concentrated their efforts to defeat the Owens bill, providing for the establishment of a National Department of Health. They have as their literary champion *The New York Herald*, which seems to be opposed to anything which might tend to advance the standing of legitimate medicine and surgery. The absurd articles and illustrations which this paper has published upholding the position of the antivivisectionists are too well known to need repetition. Now the creation of a National Department of Health is assailed, and the American Medical Association is accused of wishing to create a Doctor's Trust.

B. O. Flower, president of the "National League for Medical Freedom," whatever that may mean, is especially active in opposing the bill. His views as given in the *Herald* are in part as follows:

"The members of the National League for Medical Freedom hold that the proposed bills are in themselves potentially dangerous. While in the light of certain facts vital to any broad or intelligent consideration of the question there is no escaping the conclusion that the proposed innovation would lead to the consummation of the cherished dream of the medical monopoly-seeking oligarchy and place the dignity, power and prestige of the government behind a class whose intolerance of other schools and systems of cure finds no parallel save in the intolerance of the upholders of religious autocracy through the long, gloomy struggle of the people for the right to enjoy religious freedom.

"Such legislation would not only lead to medical despotism, in so far as the expanding power of the proposed department could compass it, but its pernicious influence and aid would enormously strengthen the monopoly-seeking State medical organizations in their determined efforts to take from the citizen the right to employ the physician of his choice.

"No one conversant with measures that have behind them a powerful privilege-seeking interest or class need be informed that such legislation is always advocated ostensibly in the interests of the people or for the common welfare, and that its most potentially dangerous features are adroitly phrased in general provisions which at the proper time will be taken as warrants for actions, interpretations or rulings that compass what the privileged interests desire."

The National League for Medical Freedom is fighting for its life. It is opposed to all educational requirements for the practice of medicine, and likewise is opposed to all forms of governmental organization which may have the right to investigate and control "healing" and "treatments" by non-medical "professors" and "scientists." They are making a strong fight and have succeeded in

temporarily defeating the measure. However, the organization of the medical profession throughout the United States is becoming stronger and more united, and eventually must succeed in its purpose. Discouragements will come but ultimately their efforts will result in the creation of a National Department of Sanitation, Hygiene, and Health.

### THE JUNE MEETING OF THE ASSOCIATED PHYSICIANS OF LONG ISLAND.

THE midsummer meeting of the Associated Physicians of Long Island was held at Smithtown June 25, 1910. A full report of the meeting, together with papers read and the President's address, will appear in the August number of the JOURNAL.

### MEDICAL NEWS.

Edited by JAMES M. WINFIELD, M.D.

#### BILLS SIGNED BY GOVERNOR HUGHES.

—The bill lowering the standard of milk so that it shall be considered adulterated when it contains less than  $11\frac{1}{2}$  instead of 12 per cent. of milk solids.—The bill providing that when a convicted murderer appears insane the Governor may appoint a commission of three to examine him and to report to the Governor, whereupon, if found insane, the Governor may order his removal to a state hospital for insane convicts, where he shall be kept in custody until cured of his insanity, when, on an order of the justice of the supreme court, the convict is to be returned to the warden of the state's prison to suffer the sentence given him under the law.—A bill creating a new State Board of Pharmacy of nine members, to be appointed by the State Board of Regents, to take the place of the present board of fifteen members. This law is favored by the State Pharmaceutical Society and establishes a standard for drugs and medicines.—The bill providing that the Mayor of New York City shall appoint a Board of Inebriety, if the Board of Estimate and Apportionment shall approve, to consist of seven members. Five are to be appointed by the Mayor, and of this number two are to be physicians. The other two members shall be the commissioners of charities and corrections.

HOSPITALS MUST NOT WITHHOLD RECORDS.—The efforts of public service corporations to suppress news in public hospitals and to prevent damage suits by intimidating lawyers has received a setback. Supreme Court Justice Erlanger, who sustained a writ of habeas corpus in behalf of Jacob Klein, a lawyer, who was held by Magistrate Barlow on the charge of violating the anti-tipping law.

Klein, when investigating an accident case, was confronted with a rule of a hospital that employees must give no information.

Newspaper investigations of reported abuses in Bellevue and other hospitals have been crippled by these rules. It has been reported that while friends, relatives, and attorneys of patients have been excluded, claim agents for public service corporations have had access to the bedsides of dying victims.

SAFETY ASKED IN PRIVATE HOSPITALS.—Following an investigation of sixty private hospitals in the city by a special commission appointed by the State Board of Charities, headed by former Charities Commissioner Robert W. Heberd, the State Board adopted measures which, it is expected, will tend to remedy several of the evils the commission found to exist.

In at least twelve hospitals, the sanitary, ventilating and fire-escape facilities were found inadequate.



The commission proposed resolutions bearing on that subject which were adopted by the State Board. Those resolutions provide that no patient shall be retained at public expense in any ward of any hospital wholly or partly under private control unless the building is fireproof or its fire protection facilities have been approved by the State Board in writing; unless the building is sanitary, and unless the wards contain at least 1,200 cubic feet of air space for each bed. In extraordinary cases, the air space may be cut to 800 feet, but only on written permission from the board.

**A NEW COMMITTEE OF THE DEPARTMENT OF CHARITIES.**—Commissioner Drummond has created a committee to be known as the Scientific Advisory Committee of the Department of Charities, the proceedings of which are to be carried on in accordance with by-laws to be adopted with the approval of the Commissioner. The following were appointed on the committee: Drs. Richard Kalish, C. E. Quimby, E. W. Klots, C. G. Child, Jr., A. L. Root, W. F. Honan, R. S. Copeland, of Manhattan, and Dr. Calvin F. Barber and Orlando S. Ritch, of Brooklyn. The lay members of the committee are Rudolph Block, N. T. Phillips and Warren Leslie, of Manhattan.

**THE STATE BOARD OF MEDICAL EXAMINERS.**—The State Board of Regents have appointed Drs. William Warren Potter and Lee H. Smith, of Buffalo, and Glentworth Reeve Butler, of Brooklyn, members of the State Board of Medical Examiners.

**EQUALITY LEAGUE BRANCH FORMED.**—At a meeting held in Belmont Municipality Hospital, Hempstead, L. I., May 23d, the woman physicians' and surgeons' branch of the Political Equality League was formed with the following twelve charter members: Drs. Jennie V. H. Baker, Mary E. Pelton, Anna H. Shaw, Mary L. Lines, Mary E. Fish, Sophie B. Scheel, Cornelia C. Brant, Mary Halton, Harriet Van Buren Peack-

ham, Harriet W. Hale; Rachel R. Nottage, Brooklyn; and Kate MacLaren, Borough of Queens.

**A NEW HOSPITAL FOR BROOKLYN.**—St. Mary's Maternity Hospital, which was founded more than forty years ago, located at 155 Dean Street, is to be discontinued. A new institution known as the Holy Family Hospital, is to be erected on the site of the old one, at the cost of \$50,000. It is hoped to have the building ready in the fall.

**KINGS COUNTY HOSPITAL.**—The Board of Estimate has allowed \$150,000 for the erection of a new children's hospital and \$10,000 for a new refrigerating plant at the Kings County Hospital. The board has withdrew the allowance of \$36,000 for the erection of an emergency hospital at Eighty-sixth Street, Brooklyn, because the Commissioner of Charities did not consider there was any immediate necessity for this institution.

**HOSPITAL OUTGROWS QUARTERS.**—The German Hospital, situated at St. Nicholas Avenue and Stanhope Street, Brooklyn, has been forced to authorize the construction of an annex that will cost \$25,000. The proposed annex will provide for three wards and will be ready for occupancy in about three months. The funds for the increased expenses of the institution have not yet been provided, but the Hospital Benefit Society is preparing a benefit.

**DISPENSARY REOPENED.**—Owing to the endeavors of a band of energetic women, the Bedford Dispensary, Atlantic and Ralph Avenues, Brooklyn, has reopened and is in a fair way of continuing open. The dispensary was started fourteen years ago, but was compelled to close up two years ago through lack of funds.

**WILL FIGHT MOSQUITO PEST.**—That there is going to be no let-up in the efforts to exterminate mosquitoes in Flushing was indicated at a recent meeting of the Flushing Association. President Clarence M. Lowes reports that liberal subscriptions have

been received for the work that the committee has planned and that during the past month the work of cleaning out the trenches that were run through the Flushing meadows, last summer, has been completed.

A communication was received from Health Commissioner Ernest J. Lederle in regard to efforts made by his department to compel meadow owners to drain their lands, notified the Flushing taxpayers that the counsel for the department has advised that new orders be issued in a form which he has specified, and when these orders are served new actions will be commenced against various property owners affected if the orders are not complied with.

**QUITS MEDICINE TO PREACH.**—Dr. J. R. Lathan, a prominent physician of Flushing, L. I., has given up the practice of medicine to devote his entire time to religious work. The doctor's especial work will be among the sailors of the Sound and New York Harbor.

**DR. HENRY A. FAIRBAIRN.**—At the annual commencement of St. Stephen's College, Annandale, N. Y., Dr. Henry Arnold Fairbairn, of Brooklyn, received the degree of L.H.D. In 1875 the same institution conferred on him the degree of B.A., and in 1878 that of M.A.

**DR. WILLIAM H. MONTGOMERY** has been transferred from the Willard State Hospital to the Long Island State Hospital, Kings Park.

### REMOVALS.

**DR. J. J. COLLINS** announces his removal to 1359 Dean Street.

**DR. CHARLES EASTMOND** announces his removal to 67 Hanson Place (the Physicians' Building).

**DR. BURT D. HARRINGTON** announces his removal to 525 Ocean Avenue.

**DR. STUART H. BENTON** announces his removal to 1334 Dean Street.

### MARRIAGES.

**DR. ALEXANDER J. ROONEY**, one of the Coroners of Kings County, to Miss Sophie S. Livermore of Bristol, England, at Brooklyn, June 20, 1910.

### NECROLOGY.

Compiled by **WILLIAM SCHROEDER, SR., M.D.**, Chairman of the Historical Committee.

**PROF. ROBERT KOCH**, the famous bacteriologist, died at Baden Baden, Germany, May 27, 1910. He was born at Klausthal, Hanover, December 11, 1843.

In the annals of the study of bacteriology no name occupies a more illustrious position than that of Robert Koch, who developed and elaborated the discoveries and theories of Lister, Pasteur, and others, and vastly improved the methods and technique of bacteriological investigation until it has become the real science of preventive medicine. Dr. Koch's entire life was given to painstaking and persevering but bold and original research in medicine, particularly in the developing and extension of our knowledge of the disease-bearing germs and their behavior under all possible conditions affecting human health.

Dr. Koch's career as an investigator began after his graduation from Göttingen in 1866. As early as 1876 he had isolated the bacillus of the anthrax. Preventive inoculation against disease by the use of serum or lymph—the development of the Jenner method of vaccination—is a method which one might almost say originated with Dr. Koch. After his discoveries as to the nature of the bacillus causing anthrax he devoted himself to the study of the tuberculosis germ and to the so-called "comma" bacillus identified with the cause of cholera.

It was by the discovery and use of tuberculin—that his fame became world wide.

In 1891, upon the founding of the Institute for Infectious Diseases in



Berlin, he was made director. In 1905 the Nobel prize for achievements in physiology was awarded to him. His best known works are: "On Cholera Bacteria," "On Bacteriological Investigation," and "The Investigation of Pathogenic Organisms."

EDWIN FORREST PRESTON, M.D.—One of the leading physicians of Suffolk County has ended his life work. A native of Patchogue, L. I., where he was born in 1841 and died at Amityville, L. I., May 26, 1910.

He was educated at the Bellport Academy. After graduating he was principal of the Bellport public school and for a time vice-president of the Mexico Academy, Oswego, N. Y. Under the direction of his father he studied medicine and graduated M.D. from the University of the City of New York in 1871.

That nature intended him to follow in the footsteps of his father seems to be evident, and as both were members of our profession it may not be out of place to say a few words in relation to the father, Dr. William S. Preston. He was born in Ashford, Conn., January 15, 1810, and died at Patchogue, L. I., February 16, 1897. He was licensed by the Massachusetts State Medical Society in 1835. In 1837 he came to Patchogue, L. I., to practice medicine, remaining until his death.

He was President of the Suffolk County Medical Society from 1871-73. His son followed in the same office during the years 1877-81, followed by the father in the years 1894-97.

The father was a member of the State Assembly during the term of Governor Seymour. The son was nominated for the same office in 1895, but declined.

The father was school commissioner of Suffolk County, one of the organizers of the Patchogue free school and first president of the board of education.

The son was a member of the board of education for twenty years and health officer of Babylon for twenty-five years.

Their social relations seems to have been in the same line. The father assisted at the institution of South Side Lodge No. 493, F. and A. M., and was its first Master. The son was also an active member of this Lodge. The father was a charter member and first officer of Brookhaven Lodge, I. O. O. F., the son also being an active member in Nugua Lodge K. of P. Dr. E. F. Preston gave considerable of his time. He at one time represented the Grand Chancellor of the State in Suffolk County.

The father and the son were prominently identified with the affairs of the county and village in which they lived and held in high esteem by the community.

Edwin Forrest Preston was first married to Miss Lucille O. Gillette, his second wife being Miss Ermina McRobbarts, of Brooklyn, N. Y. One daughter, Maud, the wife of Stanley Howard MacGillvary, M.D., of Brooklyn, N. Y.

GEORGE WALDRON BARTLETT, M.D.—Born in Rochester, N. Y., 1852. Died in Brooklyn, June 5, 1910. Graduated in medicine from the New York - Homeopathic College, 1895. Member of the Kings County Homeopathic Medical Society, the New York State Homeopathic Medical Society, American Institute of Homeopathy.

WARREN ANDRUS JAMES, M.D.—Born in Greenwich, N. Y., 1839. Died in Brooklyn, N. Y., June 9, 1910. Studied medicine at the Burlington Medical College and Bellevue Medical Hospital College, receiving the degree of M.D. from the latter in 1863. Practiced medicine in New York City from 1865 to 1895; in Brooklyn from 1895 to 1910. Surgeon to the New York Police Department, St. David's Society, New York City, and the Children's Aid Society. He was a member of the New York County Medical Society and the Hanover Club of Brooklyn. He is survived by a widow, Caroline Hines, a son and a daughter.

# TRANSACTIONS

## OF THE

### BROOKLYN SURGICAL SOCIETY

*Meeting held February 3, 1910.*

The President, J. RICHARD KEVIN, in the Chair.

#### MAXILLARY SINUSITIS WITH POLYPI.

DR. J. D. SULLIVAN presented the following case history:

A man, 54 years of age, born in Russia. Family and past personal history negative. Eight years ago suffered an attack of severe pain in the right side of his face, which continued for a considerable length of time. During the last few years that side of his face has been very sensitive to changes in temperature. About ten weeks ago the pain became very acute and continuous. He applied to several physicians for treatment, but the relief obtained was only temporary. He was treated for neuralgia. He then entered one of the large hospitals of this city, but met with no better success.

On January 4, 1909, I saw him in consultation with his family physician. I found him debilitated and a picture of distress. His only complaint was a severe and agonizing pain in the right side of his face involving the upper lip and entire maxillary region on that side. There was no perceptible discoloration or swelling. But it was extremely tender—so much so that he would not allow me to take hold of the upper lip to inspect his teeth. He had some desire for food, but the act of mastication caused so much suffering that he restricted himself to liquid diet. When taking a drink he would seize his mustache

and hold up the lip so that it would not come in contact with the fluid. Sleep was almost impossible, except under the influence of anodynes. His temperature and pulse were about normal. Teeth appeared to be sound.

It was difficult to determine then whether the trouble was due to disease of the antrum or to a facial neuralgia. But it was quite evident that the case demanded surgical intervention. With this object in view I sent the patient into St. Mary's Hospital and called Dr. J. S. Waterman to examine the antrum with me. Transillumination showed a comparative shadow on the affected side. A trocar and cannula was inserted through the nasal aperture and the antrum irrigated. The reflow contained pus, which confirmed the diagnosis. A few days later under general anesthesia an incision over the canine fossa in the gingiva-labial groove, the soft parts and periosteum reflected up and a small opening made into the antrum by mallet and chisel. A portion of the inner antral wall was removed. Several soft polypi were then curetted away, the antrum irrigated and swabbed with tincture of iodine and the cavity packed with iodoform gauze. The patient reacted well and was grateful for being relieved from his former sufferings. The packing was removed on the third day, the cavity irrigated with iodine solution and repacked. The subsequent course



of the case was all that could be desired. The opening through the canine fossa healed nicely and finally closed entirely, but a small communication remained into the nostril.

The points of interest in this case are that the disease had existed so long without being recognized that the ordinary treatment of sinusitis by irrigation would not be effectual in this case and that a radical operation and the removal of the polypoid growths were necessary to effect a permanent cure.

#### A CONGENITAL SACRAL TUMOR.

DR. J. D. SULLIVAN reported the following case:

On July 13, 1909, I was called to see a girl 13 years of age who was suffering with obstinate constipation accompanied with quite severe abdominal pain. This condition was very gradual in onset. The fact was elicited that when the bowels were loose she was free from pain, and as the difficulty of obtaining an evacuation increased the pain was intensified. Her general health was fairly good and there was no other cause for complaint. Her mother died while she was yet an infant, consequently she was deprived of maternal care and solicitude. While making a physical examination my attention was drawn to a tumor about the size of a child's head over the sacrum. Her father stated that at the time of her birth there was a lump about the size of an orange in that region and that it had progressively increased in its dimensions, but as it appeared to cause no trouble, little attention was given to it. Digital examination of the rectum revealed that the pelvis was filled with a firm mass which raised the bowel forward towards the pubes and

which was continuous with the external tumor and appeared to contain the sacrum in its center. The external portion of the tumor was soft and lobulated, apparently a lipoma, while the internal portion was smooth and dense like a cyst filled with fluid. It was quite evident that her constipation was due to a mechanical obstruction caused by the tumor.

She was sent into St. Mary's Hospital. Two days later, under general anesthesia, an elliptical incision was made over the tumor, the skin flaps dissected up and the mass freed from its attachments to the sacrum, the gluteal and levator ani muscles and the external portion of the tumor, including the coccyx were removed. While exploring the internal portion of the tumor an opening was made through the cyst wall and about 3xvi of a cloudy, greenish fluid escaped. Another cyst containing about 3iv of gelatinous matter was found extending up close to the sacrum. The large cyst wall extended up to the promontory of the sacrum and was closely adherent to the posterior aspect of the rectum. There was no communication with the sacral canal. The cyst cavity was washed out with an iodine solution and loosely packed and drained. The skin wound was partially closed. I am indebted to Dr. W. F. Campbell for valuable suggestions before and during the operation. The patient reacted well and convalescence was satisfactory. Primary union occurred in the external wound, but the obliteration of the cyst cavity was slow and the final healing somewhat protracted. The general health of the patient has been very much improved.

Dr. Sullivan stated that a few weeks ago there was still a discharge.

There were two quite deep cavities extending up anterior to the sacrum. These were discharging pus and evidently some of the cyst wall had been left and was still secreting.

Dr. Sullivan sent the patient to the hospital and enlarged the wound, and, with a sharp curet scraped away all of the cyst wall, and it is now healing soundly. The tumor is oval in the form of a letter U. The external portion stood up outside of the sacrum and coccyx. It is a lipoma. The lower portion (indicating) is a cyst cavity. A portion of the tumor is a lipoma and a portion is a multicocular cystoma. Dr. Sullivan demonstrated on the specimen the point of the coccyx and the portion of the tumor which was outside the sacrum and coccyx and that which was inside. In the operation the coccyx was separated from the sacrum with the tumor and the cyst dissected out. There were quite a number of loculi. Two of them remained which were curetted out afterward. One was very much distended and contained sixteen ounces of fluid. The rectum was pressed forward to the pubic arch. Dr. Sullivan exhibited a photograph of the tumor.

*Discussion by Dr. M. Figueira.*—Dr. Figueira thought that the fears of Dr. Sullivan had that he might strike the sacral canal were well founded. Dr. Jacobi had reported a case in which his assistant in removing a supposed lipoma over the sacrum, opened the spinal canal. It was a spina bifida. Previous to this Thomas reported a case of a tumor in the pelvis arising from the sacrum and pressing the rectum and uterus forward. It was considered a cystic tumor of the sacrum and was ex-

cised. That patient also died. It was spina bifida. In these cases, especially when they are congenital, one should bear in mind the possibility of a spina bifida being present. Dr. Figueira suggested the possibility that this was a spina bifida originally and that nature in time cut off the communication with the spinal canal. In the case of Dr. Jacobi there was a lipomatous growth over the spina bifida, so that he was mistaken.

#### RETROPERITONEAL FIBROMA.

DR. J. D. SULLIVAN reported the following case:

M. R., male, 35 years. Italian. Laborer. Admitted to St. Mary's Hospital October 18, 1909. Family history negative. He enjoyed ordinary health up to about a year ago when he began to have abdominal pain, indigestion and constipation followed by chills and fever at irregular intervals and frequent night sweats. About six months ago he noticed that his abdomen had increased considerably in size and become tender to touch. The pain, which was dull in character, gradually became more intense and located in the right epigastric region. During the last three months his appetite has failed; he had suffered much with indigestion. Bowels have become obstinately constipated and he has lost considerably in weight. The chills and fever have continued at irregular intervals and the night sweats have become more profuse. On examination his abdomen was very much distended and a hard mass palpable on the right side which appeared to be continuous with the lower border of the liver extending three inches to the left of the median line down to the umbilicus, then sloping to the right inguinal fossa and complete-



ly occupying the right lumbar region. This mass was irregular on the surface, somewhat nodular, with varying degrees of density and slightly movable. Manipulation caused little or no pain. Laxatives were prescribed and he was put upon a fluid diet. During the following week his temperature varied irregularly from 98 degrees to 102 degrees, and he perspired copiously every night. Examination of blood and urine gave negative results. He was seen by several members of the hospital staff, but no one ventured a positive diagnosis. I proposed making an exploring operation, but he would not consent and left the hospital. During the following four weeks his family physician communicated with me several times and informed me that his condition was growing more serious. On November 19th, one month after leaving the hospital, he returned, willing to submit to operation, but with very little hope of recovery. His condition was about the same, but his sufferings more intensified. He had a constant and distressing pain in the epigastric region and his night sweats were aggravated.

On November 24th the abdomen was opened by a vertical incision just below the free border of the ribs and external to the right rectus muscle. It was now noticed that the anterior and posterior layers of the peritoneum were in apposition and that the tumor was retroperitoneal. The intestines were crowded over to the left side of the abdominal cavity. A longitudinal incision was then made through the posterior layer of the peritoneum and the tumor exposed. Tumor very adherent to surrounding structures, particularly the right kidney capsule. It was freed by blunt dissection and a tumor weighing about ten pounds re-

moved. The anterior layer of the capsule of the kidney, the suprarenal capsule and all the perirenal tissue were included in the tumor, but the kidney appeared healthy and was left *in situ*. During the operation it was necessary to enlarge the abdominal opening by a transverse incision external and at right angles to the original wound, to extricate the tumor. The retroperitoneal space was drained, the greater portion of the opening in the posterior layer of the peritoneum was sutured and the abdominal wound closed. The patient reacted very well and left the table in good condition. The abdominal wound healed by primary union, but there was a discharge from the retroperitoneal space for several weeks. With this exception his recovery was satisfactory in every respect.

The tumor which appears to have originated, either from the fibrous capsule of the kidney or the perirenal tissue, was eleven inches long, eight inches broad, four inches thick and weighed as before stated, ten pounds. It was composed of fibrous tissue interspersed with numerous cystic formations containing a gelatinous fluid and disintegrated or necrotic tissue. This condition was evidently due to a central necrosis resulting from interference of the blood supply to various parts of the tumor during its growth and development.

#### FULMINATING APPENDICITIS.

DR. L. W. PEARSON reported the following case:

Mr. G. C., age 22, had the usual illnesses of childhood, after which his health was good until 1904, when he had an attack of catarrhal jaundice, lasting ten or twelve days. He was subject to an unrecognized attack of appendicitis in the summer of 1908.

Nothing more impaired his health until February 6, 1909, when, in the afternoon, he felt unduly tired and had a slight headache. At the approach of night he had one or two loose movements and slight abdominal pains. Dr. Pearson saw him at ten P. M. He had vomited a little and complained of pains about the umbilicus, colicky in character. He attributed his symptoms to a dietetic indiscretion of that morning. In the absence of abdominal tenderness and rigidity at every point, and his afebrile condition, though the pulse was accelerated, Dr. Pearson concurred in his diagnosis. Believing his stomach and intestines then free of offending material a hyperdermic of morphia gr.  $\frac{1}{4}$  was given with atropine sulphate gr.  $\frac{1}{150}$ . February 7th, at 9 A. M., he had a temperature of 100 degrees, pulse 110, marked tenderness on pressure over the appendical region and rigidity there and along the lower right rectus muscle. At 10.30 o'clock the temperature had become 102 degrees F., the pulse 120, and he was on the operating table at 11.30. On opening the abdomen, sero-pus appeared free in the abdominal cavity. The appendix was gangrenous and absolutely black from tip to base. Adjacent omentum was gangrenous and was removed as well as the appendix. The upper part of the wound was left open for drainage. The convalescence was slow, but his health is now excellent.

Dr. Pearson's object in reporting this case was to emphasize the frightful rapidity of development in some cases. This attack had developed and the appendix had become gangrenous, as well as adherent omentum, in much less than twenty-four hours, with pus free in the abdominal cavity. It could

not be diagnosed twelve hours before the operation. At that interval the abdomen over the appendix was absolutely flacid and the right rectus differed in tension in no wise from its fellow. One year prior to this he had an attack which quickly subsided without treatment. Had I seen him in the first attack, advised non-operative treatment, and had he succumbed in this second attack, I should never have felt free of blame.

#### INDICATIONS FOR THE VARIOUS OPERATIONS ON THE GALL BLADDER.

A paper with the above title was read by Dr. Walter C. Wood, for which see page 251.

*Discussion by Dr. R. W. Westbrook.*  
—Dr. Wood has anticipated criticism of his attitude regarding cholecystectomy. His after-troubles were after cholecystectomies. Mine have been after cholecystostomies. I have never regretted taking out the gall-bladder, and I have taken out a good many. I have never had recurrence of stones in any cases where I have removed the gall-bladder. This simply illustrates the personal experiences we may have. I do not believe fatal peritonitis need result from a subsequent leakage from the stump of the cystic duct. This will occur inevitably in a certain small proportion of cases. It has been my custom to tie it off if I do not drain the common duct. Drainage may be secured by passing a rubber tube through the slit-up cystic duct into the common duct. This may become loose with the patient's motions and vomiting. In quite a number of cases I have omitted drainage into the common duct, and these have been cases where there was no infection



of the common duct. In such cases in tying off the stump of the cystic duct I have used a double chromic gut ligature usually suturing the chromic gut into the stump of the duct so that it will stay. In two cases I have had rather serious symptoms where the duct reopened, but the drainage became free and the symptoms subsided, and I have never had a fatality in a case of cholecystectomy. I think one should make pretty free provision for drainage in case the ligature should give way. I have found that a few wicks were sufficient if they do not slip away from it. Usually I have sutured them in with cat-gut and have also sutured tube drainage to the stump with cat-gut. I do not believe the patency of the cystic duct is the rule which should guide us in removing the gall-bladder. If the gall-bladder is a thickened, damaged organ, I believe it is better out than in. With regard to this question, there are two camps. I believe cholecystostomy should be the normal operation, but I do not think the gall-bladder should be left when it is very much damaged or thickened, where it is not likely to be able to again take up its function as a gall-bladder, whatever that may be. I have had several cases where I have reoperated and removed the gall-bladder. In one there was a well-marked recurrence of gallstones. This was a very acute cholecystitis where I did a cholecystostomy. In a year the patient had a recurrence. She allowed me to remove the gall-bladder, and in the gall-bladder were six stones all of the same size, showing that it was a genuine recurrence of gall-stones.

I believe cholecystectomy an operation without undue risk, and a very satisfactory operation in selected cases. I think the pendulum is swing-

ing too far backward again towards cholecystostomy. The Mayos have done a considerable proportion of cholecystectomies, but are draining the common duct more than they used to in such cases. They have had four recurrences of stones in the common duct after cholecystectomy. One has to be very positive there are no small stones left in the common duct before completing the operation.

The other points which Dr. Wood made I am quite in accord with.

With regard to the use of urotropin in biliary cases I would like to say that several years ago Dr. Fairbairn suggested it to me in this city. He felt it was a logical thing and he was using it then quite freely in such cases.

*Discussion by T. B. Spence.*—Dr. Spence favored opening the gall-bladder and draining. He had one unpleasant experience with cholecystectomy and is prejudiced against the operation. He confines himself almost entirely to cholecystostomy.

*Discussion by Dr. J. P. Murphy.*—

Dr. Murphy said that in considering the authority of the Mayos one should consider that much of the surgery they do is done in selected cases. They are not likely to see the acute cases which are ordinarily seen in an acute service in an active hospital. In a general way injuries of the bladder and pathological changes are clear indications for the removal of that organ, and in general Dr. Westbrook can be congratulated in having such a fine record. There are certain cases which cannot be operated on.

A woman whom Dr. Murphy saw about twelve years ago had unmistakable symptoms of gall-stones. Operative interference was not suggested at that time. Several years after her

mother had trouble referable to the liver and a diagnosis of carcinoma was made, an exploratory laparotomy was performed and she died. Two years ago a sister was taken with gall-stones, was operated on and died five days after. A neighbor was operated on and died. In November she had a well defined mass and symptoms referable to the gall-bladder. Dr. Wood saw the case and advised operation, which she refused. The case ran along and Dr. Murphy saw her the first of March. He saw her again in April. At that time she had an idea of gall-stones. Dr. Murphy could then find no evidence of the mass which was felt in November. In May she developed melancholia and was put in charge of a nurse. Dr. Murphy saw her occasionally and the father came in one day and said Dr. Max Einhorn, of New York, would see the case the next day with Dr. Murphy. Dr. Murphy saw the case, examined the urine and found nothing. The next day the patient was apathetic. Dr. Einhorn saw her and said there was no evidence of gall-bladder trouble. The next day she developed a temperature of 108 degrees and died with a temperature of 110 degrees. Veins from the lower extremity showed the blood had clotted in them and there was a condition of dry gangrene.

*Discussion by Dr. J. A. Lee.*—Dr. Lee reviewed a case which he presented to the Society two months ago. The patient had a large distended gall-bladder, which, upon being opened up, showed half a pint of thick, creamy pus, which came out first, and in the bottom of the gall-bladder was another half pint of mucus. The cystic duct and the common duct were searched carefully for stones. The woman never gave a history of jaundice. With the presence of pus, cholecystectomy was considered out of the question, even though the immense amount of distension of the gall-bladder pointed to the fact that there was an obliteration of the cystic duct, nevertheless she was drained with the expectation that at some future time there would be a persistent sinus which would have to be cured by removal of the gall-bladder itself. But the sinus after draining for about two months, cleared up entirely and has remained closed for nearly two months. All during the period when the gall-bladder was drained, there was no appearance of bile at all. Pus drained off at first, then it became mucus and then water and finally the sinus closed up entirely.

*Report of the case of "Intra-ligamentous Cystoma" and "Intestinal Obstruction" will appear in the next issue of the Journal.*



# LONG ISLAND MEDICAL JOURNAL

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## THE THIRTY-SEVENTH REGULAR MEETING OF THE ASSOCIATED PHYSICIANS OF LONG ISLAND

By JAMES COLE HANCOCK, Secretary.

**F**AVORED by ideal weather conditions, a numerous attendance, a very interesting scientific program, fruitful efforts of Dr. Ross and the Entertainment Committee, and one of the most perfect settings within the gift of nature, the Thirty-

Brooklyn left the Flatbush Avenue station at eleven o'clock. The train, making various stops between there and Smithtown, took up other members and guests at stations along the line. Arriving at Smithtown on time the train was met by automo-



seventh Regular Meeting of the Associated Physicians of Long Island was held Saturday, June 25, 1910. The Entertainment Committee had provided a special train on which the members and guests residing in

biles and the main party was transported to the estate of R. H. Handley, Esq., on the west bank of the Nissequogue River, about three and a half miles from Smithtown. A few who preferred boarded launches for the

trip down the river to the Handley landing. A short walk through the woods from the Handley lodge and the party arrived at the landing where already a roaring fire marked the spot where the clambake was soon to be prepared. A clam-chowder luncheon was served upon arriving at the landing, and while those present were deeply interested in disposing of it the strains of a bagpipe were heard in the distance, gradually coming nearer and nearer, until presently a Scotchman with kilts and bagpipe emerged from

minutes of the previous meeting were read by the Secretary and approved.

#### REPORT OF THE MEMBERSHIP COMMITTEE.

The Membership Committee, through Dr. George F. Little, reported favorably upon the following applicants: Joseph D. Hallinan, Richmond Hill; Robert A. Adams, White-stone; Archer W. Jagger, Flushing; Harry Stark Fincke, Astoria; Joseph Baum, Far Rockaway; Edward A. Flemming, Richmond Hill; Arthur W.



"AMONG THOSE WHO TOOK PART IN THE DISCUSSION OF THE PAPER WERE—?"

among the trees and marched past in a most dignified and melodious manner. Dr. Frank Overton took many interesting and beautiful photographs during the afternoon. Following a short meeting of the Board of Directors all assembled at the place of the regular meeting. This was on the high ground back of the landing among the trees in a natural grassy amphitheatre, with an elm tree at the lower boundary which served as a canopy for the officers and speakers. The meeting was opened by the President, Dr. Thomas R. French, and the

Thompson, Flushing; Frederick J. Schweikart, Elmhurst; Tyler G. Cooke, Richmond Hill; Max Lehman, Glendale; Albert L. Voltz, Woodhaven; C. A. Ross, Queens; Samuel A. Wood, Elmhurst; Conrad Otto Stumpf, Queens; William J. Burns, Glen Cove; D. G. Bray, Sayville; W. N. Barnhardt, Central Islip; Noah S. Wadhams, Westhampton Beach; H. C. Pattengill, Jamaica; Howard W. Neail, Jamaica; J. Lyman Bulkley, Jr., Richmond Hill; Walter B. Wellbrock, Good Ground; H. E. Boorum, Rockville Centre; F. Love Keays,



Great Neck; Mortimer G. Burford, Brooklyn; Frederick D. Crawford, Brooklyn; Francis J. Duffey, Brooklyn; Charles Dumey, Brooklyn; Thomas Dixon, Brooklyn; J. M. Dusseldorf, Brooklyn; H. F. Eichacker, Brooklyn; C. R. Estabrook, Brooklyn; James M. Downey, Brooklyn; James E. Cosgrove, Brooklyn; A. L. Cardoza, Brooklyn; James H. Andrew, Brooklyn; Herbert F. Williams, Brooklyn; Robert O. Brockway, Brooklyn; Emanuel J. Leavitt, Brooklyn; William Lintz, Brooklyn; Harold L. Barnes, Brooklyn; F. C. Mack, Brooklyn; S. Hubert De Coste, Brooklyn; Pedro J. Larralde, Brooklyn; Harold L. Barnes, Brooklyn; J. William Walsh, Brooklyn. These were elected to membership.

#### REPORT OF THE PUBLICATION COMMITTEE.

Dr. James M. Winfield presented a report for the Publication Committee. He stated that the committee had held a number of meetings and various matters had been discussed. It had been decided that the July number would contain the first of the hospital articles relating to hospitals on Long Island, that the August number would be devoted to the proceedings of the Association at this meeting and would contain the President's address, Dr. Wiley's address, the By-Laws, the roster, and other matters of interest to the Association. He said it was the intention to devote the September number to papers, proceedings, etc., of the Suffolk County Society. The hospital articles would run along in each number and in the near future a Queens-Nassau number would be published. It was the desire of the Publication Committee to get papers of interest from prominent medical

men throughout the country, but as for this purpose they found it necessary to promise reprints, it was recommended that the committee should be empowered to furnish a certain number, but not more than one hundred, free to such writers, when, in the judgment of the committee it was deemed necessary. It was earnestly hoped by the committee that the Public Health and Legislative Committee would send them such items of value and interest as they might have. The JOURNAL wished to acknowledge with thanks the valuable help it had received from the Chairman of the Historical Committee. The News Editor would greatly appreciate items of interest from the Island, and earnestly requested each member to be a reporter from his district and that any news be sent, for even that which might seem commonplace to them might prove of interest to some. The report of the Publication Committee was received and ordered filed and the recommendation with regard to free reprints to be given when necessary was approved by the Society.

#### REPORT OF LEGISLATIVE COMMITTEE.

Dr. William E. Butler, Chairman of the Legal Committee, presented a short report showing that the committee was watching legislative matters.

Resignations were received from the following: Dr. F. J. Bates, Seatauket, L. I.; Dr. Lester Page Hoole, 974 St. Mark's Avenue, Brooklyn; Dr. Henry M. O'Reilly, 82 Sixth Avenue, Brooklyn, and Dr. Vernon E. Taylor, 955 Eastern Parkway, Brooklyn. The resignations were accepted.

Next followed the President's address which Dr. French had intended

to read largely by abstract, but, upon motion of Dr. James W. Fleming, Dr. French was unanimously requested to read his address in full, which he did. The address was a most interesting and comprehensive one and is found in another part of this JOURNAL. A committee to consider the recommendations of the President's address was, upon motion, appointed by the Chair. The committee, consisting of Drs. Barber, Winfield and De Lano, reported later that they favored the acceptance of all the President's recommendations, which report was accepted and the recommendations were approved.

The President, after introducing Dr. Dudley D. Roberts, Chairman of the Scientific Committee, turned the

livered the scientific address and who was our especial guest of honor. Dr. Wiley's discourse was listened to with attentive interest and the practical ideas which were brought before the Society were greatly appreciated. At the close of the Scientific Session Dr. Charles Jewett proposed a rising vote of thanks to Dr. Wiley for his valuable address, and Dr. Frank T. De Lano moved that Dr. Wiley be made an honorary member of the Associated Physicians of Long Island. Both these motions were unanimously passed.

There being no further business, the meeting was adjourned and the members assembled at the dinner tables, some on the landing level, and others among the trees on the beau-



PREPARING THE CLAMBAKE.

Scientific Session over to Dr. Roberts who, in a few, well-chosen words, introduced Dr. Harvey W. Wiley, the Chief Chemist of the Department of Agriculture in Washington, who de-

tiful wooded bank reaching back from the landing.

The preparation of the bake had been a matter of great interest to all and especially to our chief guest of



the day. As details of a Rhode Island clambake are ever the same, and probably well known to all, it seems wisest not to give a description. If Rhode Island clambakes are at times good, bad, or indifferent, speaking relatively, this must have been one of the best that was ever baked, for it was enjoyed to the full. It was prepared by a Long Island expert of great experience. During the feast Dr. Wiley, who was seated at the table of honor situated on the wooded bank above the landing, proposed a vote of thanks to the chef who had prepared all the good things. Dr. Winfield proposed a vote of thanks to R. H. Handley, Esq., and that the Secretary be requested to write him a letter of thanks and appreciation. Dr. R. L. Dickinson, in

made it necessary. Dr. William H. Maddren had that day resigned the office of Chairman of the Entertainment Committee and he, the President, desired to take advantage of that opportunity to say that Dr. William F. Dudley had been appointed in his place.

After most of the things to eat and drink had been disposed of and the members had been entertained with motor boating and other forms of amusement, the return to Smithtown was begun by means of stages and automobiles, and the train, with all safely aboard, made a quick run to Brooklyn, stopping at various places for the accommodation of those who lived along the line. It was the general opinion that this outing-meeting had proven one of the best in every way that the Associated Physicians



an eloquent little speech, proposed a vote of thanks to the Entertainment Committee, those who gave us the use of the launches, and all others who contributed to our comfort and happiness. These motions were duly seconded and heartily passed by the assembled members. The President announced that for reasons which

had ever experienced. At the close of the regular meeting the President announced that, in all probability, the October Meeting would be held in Oyster Bay and that Mr. Roosevelt had said the day before if he was at home on the date of the meeting he would be glad to deliver an address of welcome to the Association.

## PRESIDENT'S INAUGURAL ADDRESS ASSOCIATED PHYSICIANS OF LONG ISLAND.\*

By THOMAS R. FRENCH, M.D.

IT is a time-honored custom for your presiding officer to make a few remarks at this the association's first meeting of the year, but because of the nature of this practically out-of-door meeting, the purpose of which is so largely social, it is properly expected that, in speech at least, his disquisition will be exceedingly brief, even though the body of the text of his address must be left for presentation to you through our journal. To this expectation we shall give due heed and promise to say but little, though it would seem that we have written much.

And this leads me at once to invite your attention to the journalistic organ of our association and to assure you of an awakening of interest in its development. For some time past we have been in a particularly favorable position to note the growing interest of the members of the association which, we feel sure, bespeaks for the Journal an increasing degree of usefulness and value in the future. The official organ of the association is the only medical journal published on Long Island and it is greatly to our interest to foster its expansion, for upon it, now that we have undertaken it with the purpose of making it a success, depends very largely the continued and increasing prosperity of this society. We believe, too, that a display of pride in this publication, evidenced by contributions to the various departments by the members, will materially assist in raising the

tone of the medical profession of the section of the country which it represents. It was, we are given to understand, very largely for the purpose of furthering the interests of the medical profession on this snug island of ours, outside of the city, that the idea of the Journal was conceived. The greater city is represented by a number of medical journals and we of the city could find an abundant outlet for our thought and work through those publications, but the island was unrepresented by a medical periodical and it needed one. Therefore, I appeal to you men of the country part of the island as well as to those of the city portion of it, to lend your aid to the upbuilding of our journal to the end that it may become an ever-increasing power for the advancement of the interests not only of the medical profession but the laity as well.

Through the journal and the publication of the association's transactions, this body has come to be a medical force, in the city and upon the island, of no small value. The society is growing rapidly and its membership now numbers nearly or quite six hundred, but mere numbers will be to little purpose unless backed by enthusiasm and activity. We are looking forward hopefully to the time when the utterances of our Public Health Committee will be deeply impressive and will act as guides to assist in the maintenance of the health of the communities in this section of the country. There is here, as we see it, a unique and magnificent op-

\* Delivered before the Association at the meeting held on the west bank of the Nissequogue River, June 25, 1910.



portunity offered for this association to do potent and fruitful work in preventive medicine.

We understand that the belief is entertained by some of the members of this body, that the material for our scientific sessions should be supplied by members only and that there is no need for outside aid in this particular. We cannot but feel that this is a dwarfing and narrow view to take of the matter, and that by such procedure we would proclaim our desire to maintain a distinctly local institution. This developing society of medical men is in need of and, we believe, expects that it shall be informed through its Scientific Committee of that which is new and of special import. We have a very large number of talented men in the association who are capable of supplying, and ought to supply, the needed material for the greater part of the scientific sessions, but the injection of the thoughts of some of the gifted outsiders who have done brilliant and valuable work, will infuse life into the proceedings and their publication will brighten the pages of our journal.

This society is in part social, and a delightful part it is too, but that part which is scientific cannot be made too substantial and attractive, and if by an occasional seeking of contributions from the leaders beyond our borders we can enrich the atmosphere about our work, there ought, we think, to be no question of its propriety.

Your presiding officer is impressed with the belief that the best interests of the association would be served if certain changes were made in our by-laws. Section 1, of Article 3, provides that various standing committees of the association shall be appointed by the chair, but that the

Historical Committee and the Committee on Public Health shall be permanent committees. Section 1, of Article 5, provides that the Historical Committee shall be composed of a member from each county medical society of Long Island and that the Committee on Public Health shall be composed of all health officers of Long Island who are members of the society. We have no criticism to make of the provision applying to the location from which the members of the Historical Committee shall be selected, but we doubt the wisdom of making either of the committees permanent, or of confining the appointments on the Public Health Committee to the health officers of the island. My reasons for believing that the Public Health Committee should not be composed of the health officers of the island are: first, that the present arrangement practically excludes the Borough of Brooklyn from representation on that committee, and second, that past experience has demonstrated the fact that the majority of the health officers of the various towns and villages on the island, who are members of the Public Health Committee, are so fully occupied with their official duties, in addition to their private practice, that it is beyond their power to give the time required for investigating the various questions pertaining to the health of the island communities, with a view to the presentation of their findings before this body. While it would be extremely gratifying to be in a position to engage such qualified men to prepare data and give expression to views on the various conditions and diseases which come under their observation, it is manifest that, at present at least, we may

not expect of all of them as much as we desire and we should, therefore, we think, leave the field open for the appointment of such medical men as are in a position to give the necessary time, interest and attention to the duties of that exceedingly important committee. We, therefore, recommend that the by-laws be so amended that all committees shall be appointed annually by the chair and that none shall be made permanent. To accomplish this it will be necessary to amend Section I, Article 3, by striking out the words: *The Historical Committee and Committee on Public Health shall be permanent committees. When vacancies occur in the Historical Committee they shall be filled by the President of the Society.* Incidentally we would recommend, in addition, that the same section be amended by inserting the word *annually* between the words *appointed* and *by*. Also that the same section be amended by striking out the word *and* between the words *committee* and *a*. And further that the same section be amended by adding the words *and an Entertainment Committee* after the word *Health*. The whole section in question would then read: *The following standing committees shall be appointed annually by the chair: a Scientific Committee, a Membership Committee, a Legal Committee, a Historical Committee, a Committee on Public Health and an Entertainment Committee.* It would also be necessary to amend Section I, Article 5, by striking out the words: *be composed of all Health Officers of Long Island who are members of the Society. This committee shall.* That portion of the section referred to would then read: *The Committee on Public Health*

*shall have charge of all matters pertaining to the public health and its scope shall also include the natural features and the endemic diseases of Long Island.*

We recommend that the by-laws be amended in accordance with the above suggestions, and if your views coincide with ours in this matter and you should be pleased to endorse them, then the words contained in this address relating to the questions in hand will serve as a notice of a change in the by-laws, to be acted upon at the next meeting of the association.

Information has been conveyed to us from various sections of the island that there is a growing demand from the laity for more instruction in matters pertaining to the public health. Public health lectures are now being given to audiences of ever-increasing size in New York City, and we are of the opinion that similar courses of instruction in the various towns and villages of the island would be welcomed. By such means a system of education could be established in the rural districts which would, unquestionably, result in the greatest benefit to the people. In no way could such a campaign be carried on more successfully and authoritatively than by this association through its Public Health Committee. We, therefore, recommend that the Public Health Committee of this association be given the privilege of taking this matter under advisement with a view to organizing a system of public health lectures and demonstrations in the towns and villages of this island. If such an addition to the work of the Public Health Committee should prove to be too arduous, consent to the forma-



tion of a sub-committee to take charge of the instruction in public health could, we believe, be easily obtained.

A number of exceedingly important questions of wide-spread interest bearing upon the relation of the medical profession to the public, have recently come into the foreground for discussion, and of the number we have selected three for brief consideration in this address. The first is the tuberculosis question, upon which, however, we will dwell but for a moment; the second is the relation of the medical profession to the public; and the third is the question of the dividing of fees, or so called "grafting."

No matter what is done for patients suffering from tuberculosis, even when the diagnosis is made early, a half, or nearly a half, of those affected will die of the disease and the other half can be saved only by continuing or increasing the promulgation of the necessary knowledge of this scourge. The public has been led, or lulled, into a sense of security regarding the disease which may eventually result in indifference to proper precautions. It is not unlikely that the millennium will arrive as soon as the general public will grasp, and act upon, the fact that tuberculosis can be prevented by a life spent largely out-of-doors, cleanliness and ample ventilation in-doors, and careful attention to personal hygiene. Nevertheless, it is our duty to continue to promulgate a knowledge of this disease and to spread such knowledge as widely as possible.

The impression prevails to a very considerable extent that climatic treatment of tuberculosis is of value only in inland localities. Reports of

the results of treatment in various states of the Union show that they differ greatly. It would be extremely interesting to know in what relation the successful treatment of tuberculosis on this salt-air-flooded-island stands to that of the interior. Long Island is said to be the most wind-swept land in the world and it would be of interest, and, perhaps, of great value, to determine what, if any, effect this feature of the climate has upon either the production or the arrest of tuberculosis. It was mainly for the purpose of suggesting that either our Public Health Committee or, better still, a special committee take up the investigation of the effects of salt air and high winds upon tuberculosis, that this subject has been touched upon in this paper. It is not improbable that some surprising and helpful facts would be elicited.

It may be said, parenthetically, in this connection, since the president of the railroad traversing this island has demonstrated that much of the supposed sandy and waste land, more especially in Suffolk County, is but apparently unproductive and that underlying the uncleared surface is a considerable layer of fertile soil from which hundreds of varieties of plants have already been grown, we may look, at least hopefully, for an era of increased farming activity and an influx of population which will add greatly to the attractiveness of this already extremely attractive section of the country, and which will also afford a further opportunity for many to live the out-of-door life; and because of the modern devices which in new establishments will naturally be installed, the work of our Public Health Committee, in regard to such ques-

tions as the milk supply, contamination of streams and various other matters now before us for investigation and an endeavor to reform, will be increasingly simplified.

There never was a time, perhaps, in which the general public was so well educated or enlightened as it is today and, as a consequence, there is a decline in reliance upon absolute authority in all departments of life. The lawyer and the clergyman no longer hold the confidential relation with the public which they did years ago, but the medical man is still, to a very great degree, what he always has been, the friend and intimate confidant of the people. If, however, that tie is not as close as it was, to what must we ascribe the change of feeling? Specialism is unquestionably making deep inroads into the province of the general practitioner, but specialism is itself suffering because of the failures of the immature and premature specialists. The trend of the times is toward specialism and of necessity so because of the need for the subdivision of labor. The young men are, however, impressed with the belief that specialism pays and are taking up the various specialties with, in many instances, but scant preliminary training, and it is this class which is casting discredit upon specialism. The writer has for many years taken pains to advise the undergraduate to avoid getting early entangled in the meshes of specialism, but his is as a voice crying in the wilderness, compared to that of the public which is calling for specialism, and to that call there is an overwhelming response.

The arts of medicine and surgery are making rapid advances and thoroughly qualified medical men are

better fitted to compete with disease than ever before in the world's history. But while this is true, human nature remains the same. The greatly improved methods in surgery have made operative work less and less serious from the standpoint of both patient and surgeon and results can now be promised which could not have been promised, nor even obtained, before, and as a consequence medical measures have, to a large degree, given way to surgical procedures. We wish, in this connection, to raise the question whether this state of affairs is not, to some degree at least, accountable for the somewhat changed relation of the laity to the medical profession. The fear of the knife is undoubtedly decreasing but, it is, we think, quite safe to say that it is not decreasing as rapidly as the surgical methods of relief are increasing. Our own observations and experiences incline us to the belief that the lust for operating has had something to do with the fact that a portion of the community has separated itself from the medical profession and is, perhaps, seeking to secure through milder measures a relief from the ills of the body. It is, we believe, of very considerable importance to determine, if possible, whether this situation is not, in part at least, accountable for the drift of the interest of the public toward the creed of the Boston Obscurantist and the various other cults of the day. Experience teaches us that it is not always a question of what a thing is, so much as what it seems to be, and it behooves our leaders and teachers to take this element into prominent account when dealing with the relation of the medical profession to the public.

Civilization is changing. So, too,



are the methods of the members of the medical profession, but the changed methods of the doctors are due largely to the changes in the times. Nevertheless, the nature and high ideals of the medical man are the same as they have always been. The new order of things is the prevention as well as the cure of disease and though the increase in the health of the people means a decrease in the income of physicians, their eagerness to enter the various fields to reap a harvest of health for the people is, perhaps, greater to-day than ever before. It is an inspiring example and an evidence of a fineness of soul which commands admiration and assists greatly in the maintenance of faith in the unselfishness of man. So long as this spirit continues, and there seems to be no reason for believing that it will ever decrease, there can be no danger of the severance of the close tie which exists now, and always has existed, between the members of the profession of medicine and the laity. It is, therefore, a mistake to say that the medical profession is losing cast and that physicians do not, as a rule, enjoy the confidence and respect of the public they had in former years. Because the people are turning to other methods of treatment for the time being is no reason for believing that they either lack respect or confidence in the members of our profession, but, rather, that they are looking for easier methods and means, so alluringly proffered to them, than those which time will prove they must submit to. We are, no doubt, learning a lesson, which we are even now beginning to turn to account.

We do not look for a return of the old methods nor the blind faith of the

past. The tendency is toward individual thinking. As the conditions have changed we must adjust ourselves to the new order of things and we cannot but feel that one of the most important lessons being taught by the signs of the times is the need of higher educational requirements for admission to our profession.

It is extensively rumored that the dividing of fees has become a common practice among medical men. We have no way of knowing to what degree this statement may be true, but that it is true to some degree there is, perhaps, little reason to doubt. There would be no harm in such a practice if all the parties interested were aware of the division to be made, but it can never be regarded as a right thing to do unless the payer of the fee is, at least, informed of the arrangement agreed upon among the physicians. If the practice of dividing the fee without the knowledge of the person paying it should be known to be a common custom, that knowledge would shame the ideals of our honored profession. There can be but one code if we are to maintain the high level of honor to which our profession has attained.

The difficulty of making a living in the practice of medicine to-day is due largely to two conditions, viz.: the improved health of the public, acquired through a larger knowledge of the laws of health and taught to the people by the doctors, and the overcrowded condition of the profession. This situation will, doubtless, account for the dishonest practices of a few, which being discovered are spectacularly held up for the contemplation of an astounded public. Most of the things which are being said to-day in treatises on this subject could have

been said with almost equal propriety at any period in the lives of any of us. We do not believe that the percentage of dishonest men in the profession is any greater than it has ever been. Indeed, we cannot but feel that this whole matter has been grossly exaggerated. It is entirely possible that the spirit of commercialism has permeated the medical profession to a limited extent. It would be strange if it had not. But that the extent is great we do not believe. The scientific enthusiasm, high-mindedness and lofty aspirations of the members of the medical profession are as pronounced to-day as ever. There were never more men ready to do laborious work in our laboratories, simply for the good it may do for suffering humanity, than now. The instances of young men leaving lucrative practices for this purpose, or who have been unmindful of alluring prospects in the practice of medicine, are growing in number. That there are a few men willing to practice the trade, under the guise of the profession, of medicine, cannot be wondered at, but the public has as much reason to place its trust in the general practitioner, the surgeon and the specialist as it has ever had. We believe it to be true that one of the main reasons for the recent criticisms of the medical profession, which have occasionally found voice in newspapers and magazines, is born of the distrust which has arisen from the exposures of corrupt business methods made in recent years. Because of an inflamed public distrust, a solitary instance of the division of fees among medical men is made a basis for the belief that the medical profession is growing mercenary, and its members are thinking more of the acquisition

of wealth than the interests of their patients. Nothing could be further from the truth and we can feel comfortable in the assurance that the art and science of medicine, which is being developed as never before, will keep the spirit of the medical profession as it has always been, aloof from the sordid interests of the world to a greater extent than can be said of any other calling.

The medical profession has never been as crowded as it is to-day and there are, no doubt, more doctors in this country than are needed. With the same percentage of so called "grafters" as formerly, there would, of necessity, be more of them now. This, it seems to us, must explain the present-day criticism, for history does not show that there have ever been a greater number of educated, devoted and self-unsparing men in the medical profession than are to be found in it at this moment.

The medical profession to-day, at least in this country, finds itself in a position somewhat similar to that of the merchant who buys a vast quantity of a commodity for which there has heretofore been a uniform demand, to find after placing the goods on sale that there is a diminished demand at a reduced price. Under such circumstances he would, however, have three alternatives to choose from: To sell out at a loss, or to hold his goods with the hope of a rise in the market, or to buy in all of the same kind of goods in the country and so corner the market. The medical profession has but two alternatives: To continue to practice at the same rates, even though the expense of living is constantly increasing, or to organize for the purpose of advancing its scale of fees. Should organ-



ization be attempted, with such a purpose as its reason, does any one believe that the movement would meet with immediate favor? Granting that it might ultimately be effected, it would be only after years of discussion when the situation would have again changed so as to present an entirely different phase, or when the medical ranks would have been thinned out to a degree permitting a fair living to those who could continue to practice through this transition stage by their ability to meet the conditions, and to the newly graduated men with a generally better medical education.

The members of the medical profession are in very much the same

position as the employees of a business establishment who are receiving to-day the same salaries they have received for the past fifteen years, though the cost of living is very much higher. If they are not willing to continue to work for the same salaries, they are at liberty to quit, for there are many others, supposedly of equal ability, ready to take their places.

Believing, as we must, that the highest level of the intelligence of the public has not yet been reached, we have but one suggestion to offer for the improvement of the situation, a suggestion which has already been made in this address, and which is: Higher educational requirements for admission to our profession.

## PREVENTIVE MEDICINE FROM A CHEMICAL STANDPOINT.\*

By HARVEY W. WILEY, M.D.,

Chief Chemist of the Department of Agriculture in Washington.

IN former days, to all medical students, chemistry was the *bête noir* of the course; medical students then took up chemistry because they had to, and not because they wanted to. None of the intimate relations between chemistry and medicine now established existed then, and, to be quite frank, considering the way medicine and chemistry were taught then the students were quite right. It is very amusing now to recall the lectures on the practice of medicine when I was a student. The whole medical idea has changed in the last quarter of a century absolutely. The question now in the

minds of medical students is: "What am I going to be able to do to advance the medical profession in my practice?" "What can I do to contribute to the sum of medical knowledge?" These questions were little thought of when I was a medical student; then it was, "Where am I going to locate? What prospects have I? When is that old doctor going to die? When is that old man going to get out?" Such things, however, do not bother us so much to-day. The strange thing or feature in the evolution to me is in the direction of the elimination of the medical profession from any *raison être* at all. If a disease can be absolutely prevented, what is the

\*Address before the Associated Physicians of Long Island, June 25, 1910.

use of having physicians? None at all. I imagine there are two reasons why medical men are so actively engaged to-day in preventive medicine. First, they believe that the reform is coming slowly and so they can transmit to the next generation the burdens of non-support which they hope to escape in the present age. The second reason is that in my opinion there is no more altruistic profession to-day than the medical profession as a whole. I

is to benefit the human race and they are not working merely for professional gain. The medical man is willing to sacrifice his fee if he can prevent the disease. This is what I call the true altruistic attitude. I think the medical profession has had that attitude. In a scientific point of view during the last quarter of a century. Medicine has ceased to be an empirical science, and has rapidly become strictly a scientific profession, and



DR. HARVEY W. WILEY ADDRESSING THE ASSOCIATED PHYSICIANS OF LONG ISLAND.

have meddled in almost all of the professions. I have preached the gospel—I hope. I sometimes think I am a first class lawyer and when the judge or lawyer does not agree with me, I feel sorry for them. I have been in touch with the medical profession the country over, and in other countries, and I believe that I can say with honesty that the attitude of the medical profession to-day is the most altruistic of any profession in the country. Their desire

not mere empiricism. That has been accomplished by the application of strictly scientific principles to fundamentals.

I believe that the science of pharmacology alone has done even more than chemistry towards placing the practice of medicine upon a strictly scientific basis. Then again the medical profession has been helped by all kinds of "isms" throughout this country. The general discussion of medical problems has a broader



scope than you think; it has broader principles and a more generous recognition of good in other schools than in the past.

The same thing applies in medicine as applies in the religious world. When I was a boy I was brought up to belong to a sect called the Campbellites. We believed that the Methodists or Presbyterians and other sects were going to perdition because they were not taught to do as we did. In those days there was no devil for any one of our faith, but each man seemed to be busy finding him for the other fellow. But now the most fraternal toleration of religious beliefs is prevalent.

The same condition was to be found in the medical profession. Some had no tolerance whatever for any branch of medicine not theirs. They would not fraternize with another school. Rather would they let a patient die than call in a homeopath or eclectic in consultation. The dignity of the profession must be sustained. However, there is hardly an "ism," even Christian Science, but what has in it some element of truth and usefulness which we can extract and utilize.

I take it that the two sciences which have done the most for preventive medicine, bringing it out of an empirical state and placing it upon a pure scientific basis, are the sciences of chemistry and pharmacology. I wish to say a few words in regard to the development of preventive medicine from a chemical point of view.

What is preventive medicine? It is that branch of medicine which looks to the prevention of disease and has the Greek name, prophylaxis. Preventive medicine protects by bringing about in any community a state of

sanitation which tends toward the preservation of health. A second principle involved is the prevention of contagious diseases. If we can attend to these two things, we can preserve the health of the community. If you take a community and place it in good sanitary condition so that disease will be avoided from within, you will keep that community healthy unless it becomes infected from outside. If you prevent infection from outside you certainly will preserve the health of the community if its sanitation is perfect.

Sanitation in the first place means the proper care of the excreta. That is not only an engineering problem but a chemical problem as well and a very important one. I do not know of any one chemical problem mentioned that has more to do with preventive medicine than the one thing of preventing contamination from waste. In the old days, one hundred years ago, there was not a city in the world since old Rome that had tried to dispose of its sewage in a systematic manner. Rome's system existed in the dark ages, and the only thing now remaining are the engineering works and the descriptions to be found in the literature.

Some of you may have heard the story of one of the Roman senators, Cato I think his name was, I am not sure, but the story was that they created an office of Commissioner of Sewers and in derision they appointed Cato. Cato, however, so discharged his duties that afterwards to be appointed a Commissioner of Sewers was one of the highest honors that any Roman citizen could aspire to.

Only one hundred years ago the cities of this country had no systematic method of disposing of sewage.

I well remember the open cesspools which were so very common in this country; these cesspools were in the back yards. Many a time as a student have I heard the carts come around after midnight and pump out the feces and cart it away. This was even done in Paris. No plan had been worked out for the proper disposal of sewage for a long time. The first idea was to pour it into a running stream. This was a simple method and was the one first adopted. This was all right for the one city but the cities below were threatened, and this upper city had no right to do this. No particular city had any right to pour its sewage into a running stream to the injury of cities below it. This was contrary to established law. Every man has the same right to running streams and no man could use it if it was to be detrimental to his fellow living below him. It was evident at once that any system which polluted running water could not be tolerated.

Chemical science must come in and show what can be done with this material, and not from the point of view of the engineer. The engineer will never succeed in solving this problem in this sense. While we have no system of disposal of the sewage in general practice which can be regarded as universally applicable, yet we have certain fundamental data upon which such a system can rest. While the chemist formerly depended solely upon precipitation and filtration he did not entirely succeed until he discovered what had not been known before, that was, how to destroy sewage by chemical reactions produced by bacteria.

We should utilize all sciences in de-

stroying those things which threaten life. I want to tell you that the time has come when no city in the country will any more pour sewage into running streams or lakes; when every city, no matter how large or how small or where situated, must take care of its own waste and not threaten the rest of the country with it. Taking care of the waste will be, of course, to a certain extent an engineering problem. But it is the chemist who will solve the question of what shall be done with the waste of the cities. How shall we utilize the waste of to-day? In the city of Washington the disposal of the garbage brings to the city from \$200,000 to \$250,000 a year. The waste of New York City will more than pay for itself when it is found out what is the best thing to do with it. I do not like the idea of pouring the waste into the ocean. Big as it is, it should be kept pure. The Department of Agriculture has already protested to the War Department about dredging in localities where the refuse matters are dumped too near the oyster beds. I tell you that if you continue to pour your sewage into the ocean and Long Island Sound, in one hundred years from now along the shores of these bodies there will be no place for oysters and clams to grow. These bodies of water should be kept pure and clean. From these areas we obtain a large amount of the sea food supply for the country. If a safe food supply is so very important from an economic point of view, then we must see that no more sewage is poured into the Sound. I have seen scows full of filth dumped into the Atlantic Ocean. They contained matter which would be valuable and could be utilized in agriculture.



So the destruction of sewage and the utilizing of the detritus are two chemical problems and form the foundation of sanitation, and its problem becomes more and more important as the population becomes more dense. But you must not throw your sewerage into the Sound; you should utilize your sewage and dispose of it in some way in which it will do good. This is a chemical problem and a very important one, too.

Now, as to other forms of sanitation in which the chemist is interested, we must consider what happens to the air in densely populated communities where manufacturing is extensive. During the last two or three years the Bureau of Chemistry has been protesting against certain smelters because they poisoned the atmosphere. The foliage dropped from the trees and the cattle ate the grass which was poisoned. The trouble at the smelter works seemed to be with the acid towers. Fumes of sulphurous acid poisoned the atmosphere. We had them clean up the smelter works and the poison in the air was gotten rid of, the arsenic and sulphuric acid being utilized. So the purification of the air, and keeping the air pure, is a chemical problem. Now we have been frightened at the idea of passing through the tail of Halley's comet. A photograph was made of the spectrum from the tail of Halley's comet and it was learned that it contained carbon monoxide and not cyanogen, as first believed. We frequently live in an atmosphere of carbon monoxide and do not know it. People have headaches, fainting spells, indigestion and other illnesses because they live in rooms with stoves; through these stoves, when red hot, carbon monox-

ide gas flows as through a sieve. When the iron is hot it is pervious to this gas. When coal is imperfectly burned, carbon monoxide gas is formed and this percolates through the iron of the stoves and poisons the atmosphere.

Architects have but little regard for sanitation in building houses. Uncle Joe said yesterday something about the House chamber. Somebody remarked to him that he had found bad gas generated around the speaker's desk and enough to kill a dog. Uncle Joe said he felt no ill effects. Here is a house of legislation in which is represented the dignity of one hundred millions of people; they build a capitol, a thing of beauty to be admired by students of esthetics from the world over, and yet they forgot to furnish pure air for the members in that beautiful hall. They spent hundreds and hundreds of dollars and yet furnished no air at all except hot air. This is a wonderful thing. They talk about preventive medicine and yet they sit in the Halls of Congress in a polluted atmosphere. No wonder it is so hard to get public health bills through Congress when they sit in such an atmosphere. When they find out the conditions of the air, they say: "It does not hurt me." The medical profession should be largely interested in matters of public health and because of its chemical studies, and it should consider the building not only of public halls but private houses as well. Is it not a comment on a house to say, "You must live outdoors." You should build a house so that it will have pure air inside as well as outside; then you will not have to live outdoors. Teach the architect something about sanitation.

We are now having courses in sani-

tary science taught in some of the colleges of this country and I am glad of it; this science should be taught in all the colleges and universities of this country. I have already been invited to speak on public health in two different colleges, one in New York and at Cornell. I had an interesting experience at Cornell, where little was given in the course on sanitation except from the engineer's standpoint. They thought this was entirely an engineering problem. One man went to the professor of chemistry and said he wanted to take a course in the laboratory. He was asked, "What for?" He answered, "I want to learn how to make a water analysis." This experience at Cornell shows that most of the time in this course is given, not to chemistry, but to engineering. I believe in the building of beautiful houses, but I also believe that the architects should pay more attention to the sanitary construction of such houses and utilize the means which are to protect the lives of those who are to use these houses constantly.

A few years ago we intended to have a new building for the Department of Agriculture. Before starting in to build, in my innocence, I wrote to the architect and suggested that he allow me to make some suggestions as to ventilation in the part of the building that I was to occupy. He replied that the problem of ventilation could be handled without my assistance. And this problem was not considered. The first thing the Department of Agriculture had to do after the building was completed, was to spend money to get fresh air. The official architect did not know a thing about health; some of these architects never heard of it; they do not seem

to know that these buildings are to be inhabited; they are supposed only to be looked at and admired. No matter how illy ventilated these houses are, we can look at them from the outside without danger. But people must live in these buildings. However, we have introduced a system of ventilation in the Bureau of Chemistry in which the air is completely changed once in every twenty-five (25) minutes, summer and winter.

I hate to say anything about the subject of pure food, but I feel that I must say a few words because it has its place in the subject under discussion. It has been said that the chemist cannot tell pure from bad food, old food from fresh food. I tell you, gentlemen, it is not safe, without looking at this matter carefully, to place any limits on the possibilities of chemistry, because it can do more than most of you think. A few years ago it was demonstrated that the atmosphere only contained oxygen, nitrogen and carbon dioxide; but during the past ten or fifteen years the atmosphere has been shown to contain other gases which nobody even suspected, and in such minute quantities that it was like looking for a needle in a haystack. But it has been demonstrated that this great atmosphere of ours which we breathe contains many things of chemical interest which we did not know of until the chemist told us. And I tell you again that it is not safe to place any limits on what the chemist can do. The chemist has discovered argon and other new elements recently which exist in minute quantities, and it seems as if he were getting down to the ultimate, or atoms, of matter, if such is possible. The chemist will not allow any limit to be stated for what he can do.



We have started about a task of determining by chemical examination the poor from good food, the fresh from old food. We have almost done it, too. We do not have to wait to taste it either. I was asked before the House Committee, who was investigating this question, how I could tell a bad egg. I said, "If I am to tell anything as to a bad egg, I break it gently." Every change in taste, every change in odor has behind it some chemical change. Things do not "smell" of their own volition; nor do they "taste" of their own volition. Every single change in taste and odor is due to some previous chemical change behind it. These are only symptoms of what has been going on before. A chemist in my department can be given two eggs and, without using the sense of smell or taste, can tell which of the two is the fresh egg and which is the bad egg. He can also tell you within a few days how old the eggs are, the time they were laid. The same with whiskey; we can tell now whether it is fresh alcohol colored and flavored and we can tell how old it is. If there is a change in its flavor, in its odor, in its taste, in its character we can determine to what it is due.

I say that the chemist stands for sanitation; it is the chemist who has to discover the things which have been done; it is to the chemist you must come for information when you want the fundamental things. I tell you, gentlemen, there is no one factor more important in serving public health and therapeutic purposes than pure wholesome food. The time is coming when we of this country, and the people of other countries, will no longer be subjected to the dangers caused by eating foods that are *pasée*

or improperly prepared or improperly mixed. That day is very near in the future. This has been a great battle and against interests that appeared impregnable. We have had opposition and combination of oppositions but we have gradually gotten to the position where we have informed our opponents of the value of pure food. When once anything begins to disintegrate, it will go on quickly. We are going to be able in Washington to eat clams, for instance, as fresh as these we are about to partake of. It is possible for us to take certain foods and transport them to any part of this country and back again and then to find them fresh and wholesome. We can send oysters to Omaha, to San Francisco and back again, and then they will be almost as good as when first sent away. The crux of the whole thing lies in having the proper temperature and treatment in transit. Again, with vegetables we will be able to send them away and have them received and partaken of as if they were just pulled from the garden that same morning. I want to say that there is great activity manifested in the campaign for pure food in which I have been engaged for more than half a century, and this activity has been shown principally by the medical profession of this country. If it was not for the medical profession I would be very much discouraged as to the final outcome of this campaign. But every physician is a molder of public opinion in his locality. All over the country we have centers for instruction where every physician is molding public opinion which supports and, in fact, compel these movements.

I think that it is very fortunate that the Food Bill passed as late as it did,

unfortunate it would have been to have passed or enacted it twenty-five years ago. Why? Because the public knew nothing about it. We had to wait until the public was educated in these matters. The reason we are successful to-day is because the great public of the United States is behind it. People of this country have decried the courts, claiming they have been creatures of the trusts, of the monopolies; I do not believe a word of it. I have had experience with many juries and many judges and I have never yet heard a man on the Federal bench state the law in any way that was unjust or unrighteous. All praise should be given the judiciary. No wonder we have won in almost every case in the Federal court with the judge, the jury, law and righteousness on our side. These good things combine together. Of all the cases brought up only about twenty (20) have been decided against us. We should not begin a campaign with the idea that everything is to come to us at once! things that come quickly, quickly go, as a rule. Any plant that grows rapidly dies early;

things that grow slowly fight their way step by step to a firm grip on life. This same thing holds good for reforms that have come to stay. I believe that the great reform in food and drugs has come to stay. Why? Because it has come gradually and, therefore, has been placed on a firm foundation. Wonderful work is being done and has been done in the past, for public health in the prevention of disease.

The chemist has been active in every one of the great movements which go to protect the public health. There is nothing more interesting than good sanitation; good sanitation is morality; not only for the physical well-being of the people but for their morals and intelligent well-being. Good sanitation means education and must necessarily be educational.

And so I say that while all sciences, and I speak from a knowledge of what I have observed, are deserving of great credit, and have all been indispensable to the problems involved in sanitation, it is the chemist after all who stands at the head of the list.



# LONG ISLAND MEDICAL JOURNAL

A Forum for the Discussion of all Topics Involving the Medical Profession and especially that of Long Island.

EDITOR-IN-CHIEF

PAUL MONROE PILCHER, A.M., M.D.

ASSOCIATE EDITOR

JAMES MCFARLANE WINFIELD, M.D.

EDITORIAL OFFICE:

145 GATES AVENUE, BROOKLYN, N. Y.

Further Information on advertising page 3

AUGUST, 1910.

## BY-LAWS OF THE ASSOCIATED PHYSICIANS OF LONG ISLAND.

*Amended to 1910.*

### ARTICLE I.

SECTION 1. This Society shall be known as the Associated Physicians of Long Island. Its objects shall be those of a general and scientific medical society, the study of the natural conditions and the prevalent diseases of Long Island, and the promotion of the medical interests by the medical profession.

SEC. 2. Eligibility to membership shall be limited to regular practitioners who shall have the endorsement of the Membership Committee of the Society.

### ARTICLE II.

SECTION 1. The officers shall be a President and a Vice-President, each from one of the County Medical Societies of Long Island, a Secretary and a Treasurer. They shall be elected by a majority vote at the Annual Meeting.

SEC. 2. There shall also be a Board of Five Directors, consisting of the President, the retiring President, the First Vice-President, Secretary and Treasurer respectively, by virtue of their several offices.

SEC. 3. Should a vacancy occur in the Board of Directors it shall be filled by the remaining members of the said Board.

SEC. 4. The Board of Directors shall have power to appoint delegates to other medical bodies when in their discretion expedient.

### ARTICLE III.

SECTION 1. The following standing committees shall be appointed by the chair: A Scientific Committee, a Membership Committee, a Legal Committee, a Historical Committee, and a Committee on Public Health. The Historical Committee and the Committee on Public Health shall be permanent committees. When vacancies occur in the Historical Committee they shall be filled by the President of the Society.

SEC. 2. There may be such temporary committees appointed by the chair as are necessary, including a Local or Entertainment Committee for each session.

### ARTICLE IV.

SECTION 1. Stated meetings shall be held three times a year, in June, October and January, respectively, the Annual Meeting to be held in Brooklyn in January, the June and October meetings to be held at places selected by the Board of Directors. Special meetings may be called by the President at the written request of five members.

SEC. 2. For scientific purposes a quorum shall always be presumed. For executive business twenty members shall be necessary.

### ARTICLE V.

SECTION 1. The duties of the officers are explained in their titles. The Scientific Committee shall provide the

program and have charge of the scientific session. It shall be the duty of the Membership Committee to secure and recommend new members for the Society. The Legal Committee shall have charge of all legislative and legal matter of interest to the profession of Long Island. The Historical Committee shall be composed of a member from each County Medical Society of Long Island and shall collect historical data of interest to the profession on Long Island. The Committee on Public Health shall be composed of all Health Officers of Long Island who are members of the Society. This committee shall have charge of all matters pertaining to the public health and its scope shall also include the natural features and the endemic diseases of Long Island.

SEC. 2. The Committee on Publication shall consist of one member from each County Medical Society of Long Island, and shall be elected annually by the Board of Directors. One member of said committee shall be elected by the Board of Directors as Editor of the *Journal* published by the Society, and chairman of the Committee. The Board of Directors shall also elect an associate editor. The President and Treasurer shall be *ex-officio* members of the Committee on Publication and shall be notified of all meetings of the Committee. The Committee shall have charge of the publication of the *Journal* of the Association, and shall publish in it the proceedings of the Association, and scientific papers read before it. They shall issue a revised edition of the manual of the Association after each Annual Meeting. They shall also provide a book for the registry of members attending each meeting.

SEC. 3. Papers read at any of the

meetings shall be the property of the Association.

SEC. 4. The Board of Directors shall meet once before each stated meeting and shall transact all business not otherwise provided for.

#### ARTICLE VI.

SECTION 1. New members shall be admitted only upon the recommendation of the Membership Committee and a two-thirds ballot of those present and voting.

SEC. 2. All applications for membership shall be in the hands of the Membership Committee at least one month before each stated meeting.

SEC. 3. Every applicant for membership shall sign the printed application blank and accompany the application with the current annual dues.

#### ARTICLE VII.

The regular dues shall be determined at the Annual Meeting. Special assessments, not to exceed in amount the annual dues, may be levied by a majority vote at any meeting.

#### ARTICLE VIII.

A member who is in arrears for two years' dues shall be dropped.

#### ARTICLE IX.

A member of the bar may be selected as Honorary Counsel.

#### ARTICLE X.

The following shall be the order of business for the June and October meetings:

Reading of the Minutes.

Report of the Membership Committee.

Reports from other committees.

Unfinished business.

New business.



Scientific Session.

Adjournment.

# ARTICLE XI.

The following shall be the order of business for the Annual Meeting:

Reading of the Minutes.

Report of the Membership Committee.

Report of other committees.

Report of Secretary.

Report of Treasurer.

Report of Historian.

Unfinished business.

New business.

Election of Officers.

Scientific Session.

Installation of Officers.

Adjournment.

# ARTICLE XII.

SECTION 1. Amendments to the By-Laws may be adopted at any meeting provided they are proposed in writing at the last previous meeting, and receive a two-thirds ballot of the members present and voting.

SEC. 2. A By-Law may be suspended for a specific time by a unanimous vote.

## ASSOCIATED PHYSICIANS

OF

## LONG ISLAND

### OFFICERS.

*President*—THOMAS R. FRENCH, M.D., 150 Joralemon Street, Brooklyn, N. Y.

*First Vice-President*—FRANK OVERTON, M.D., Patchogue, N. Y.

*Second Vice-President*—WILLIAM B. BRINSMADE, M.D., 117 Montague Street, Brooklyn, N. Y.

*Third Vice-President*—GEORGE K. MEYNEN, M.D., Jamaica, N. Y.

*Secretary*—JAMES COLE HANCOCK, M.D., 135 Cambridge Place, Brooklyn, N. Y.

*Treasurer*—CHARLES B. BACON, M.D., City Hospital, Blackwell's Island, N. Y.

### Board of Directors.

THOMAS R. FRENCH, M.D., FRANK T. DE LANO, M.D.,

FRANK OVERTON, M.D., JAMES COLE HANCOCK, M.D.,

CHARLES B. BACON, M.D.

## ACTIVE MEMBERS.

## BOROUGH OF BROOKLYN, KINGS COUNTY.

## A

|                               |                    |
|-------------------------------|--------------------|
| Addoms, Lewis Paddock.....    | 278 Halsey St.     |
| Ager, Louis Curtis.....       | 160 State St.      |
| Alderton, Henry A.....        | 142 Clinton St.    |
| Alkier, Stanislaw Joseph..... | 6 Sumner Ave.      |
| Allan, J. Glen.....           | 141 Noble St.      |
| Alleman, Lewis A. W.....      | 64 Montague St.    |
| Anderson, Herbert C.....      | 388 Clinton St.    |
| Anderson, Lewis Nostrand..... | 526 Bedford Ave.   |
| Anderson, Robert Burns.....   | 925 Sterling Pl.   |
| Anderson, Samuel F.....       | 765 Union St.      |
| Andrew, James H. ....         | 500 Madison St.    |
| Arrowsmith, Hubert .....      | 170 Clinton St.    |
| Atkinson, Charles Lewis.....  | 75 Hanson Pl.      |
| Atwood, A. Dalton.....        | 980a DeKalb Ave.   |
| Ayers, Benjamin .....         | 280 Jefferson Ave. |

## B

|                                |                        |
|--------------------------------|------------------------|
| Bailey, Frederick D.....       | 260 Hancock St.        |
| Baker, John Lockwood.....      | 699 Putnam Ave.        |
| Baldwin, L. Grant.....         | 28 Schermerhorn St.    |
| Barber, Calvin F.....          | 57 South Oxford St.    |
| Barber, Vincent .....          | 269 Arlington Ave.     |
| Barnes, Harold Ludlow.....     | 42 Elton St.           |
| Bartley, Elias H.....          | 65 South Portland Ave. |
| Bates, Sherman W.....          | 313 Wyckoff Ave.       |
| Bayles, Havens Brewster.....   | 125 Seventh Ave.       |
| Beasley, Crawford D.....       | 702 Greene Ave.        |
| Becker, James Parker.....      | 1125 Bergen St.        |
| Beers, Nathan T.....           | 516 Nostrand Ave.      |
| Bell, Alfred .....             | 37 Linden St.          |
| Bellows, Charles .....         | 433 Nostrand Ave.      |
| Bender, Herman P.....          | 683 Bushwick Ave.      |
| Bennett, Edward C.....         | 244 Seventy-third St.  |
| Bennett, Franklin .....        | 686 Greene Ave.        |
| Benton, Stuart H.....          | 1334 Dean St.          |
| Berlenbach, Philip H.....      | 9 Stuyvesant Ave.      |
| Bermingham, Francis Henry..... | 132 Montague St.       |
| Bernauer, Emil C.....          | 860 Lafayette Ave.     |
| Bierwirth, Julius C.....       | 253 Henry St.          |
| Biggam, William H.....         | 1197 Dean St.          |
| Bishop, Eliot .....            | 46 Gates Ave.          |
| Bishop, Ernest S.....          | 919 Bedford Ave.       |
| Black, Robert A.....           | Hot Springs, Va.       |
| Blackmar, Bruce G.....         | 317 Ovington Ave.      |
| Blaisdell, Silas C.....        | 500 Bedford Ave.       |
| Blake, J. Eddy.....            | 352 Jefferson Ave.     |
| Blatteis, Simon R.....         | 596 Willoughby Ave.    |
| Bliss, R. Franklin.....        | 23 Seventh Ave.        |
| Bodkin, Martin L.....          | 255 DeKalb Ave.        |
| Boes, William .....            | 200 Graham Ave.        |



|                            |      |                     |
|----------------------------|------|---------------------|
| Bogart, Arthur H.          | 27   | Seventh Ave.        |
| Bogart, J. Bion            | 463  | Clinton Ave.        |
| Bookbinder, J.             | 76   | Suydam St.          |
| Brader, William B.         | 1198 | Bushwick Ave.       |
| Braislin, William C.       | 556  | Washington Ave.     |
| Brinkman, Albert           | 176  | Bergen St.          |
| Brinsmade, William B.      | 117  | Montague St.        |
| Bristow, Algernon T.       | 234  | Clinton St.         |
| Brockway, Robert Ormiston  | 67   | Hanson Pl.          |
| Brown, Frank E.            | 591  | Hancock St.         |
| Brown, Henry E.            | 1265 | Bergen St.          |
| Brown, Thomas E.           | 278  | Clinton St.         |
| Browning, William          | 54   | Lefferts Pl.        |
| Brundage, Albert H.        | 375  | Gates Ave.          |
| Brush, Arthur C.           | 29   | South Portland Ave. |
| Bryn, Harold               | 313  | Union St.           |
| Buckley, Charles Frederick | 802  | Carroll St.         |
| Buist, George L., Jr.      | 3    | Hancock St.         |
| Burford, Mortimer G.       | 198  | Marcy Ave.          |
| Butler, Glentworth R.      | 229  | Gates Ave.          |
| Butler, William E.         | 113  | Halsey St.          |
| Byrne, John B., Jr.        | 224a | Sixth Ave.          |

## C

|                           |      |                   |
|---------------------------|------|-------------------|
| Campbell, William Francis | 394  | Clinton Ave.      |
| Cardozo, Abraham Lopes    | 635  | St. Marks Ave.    |
| Carey, John J.            | 287  | Hoyt St.          |
| Carpenter, Frank E.       | 688  | Madison St.       |
| Catlin, Arnold Wells      | 207  | Greene Ave.       |
| Chapman, William L.       | 19   | Lafayette Ave.    |
| Chase, Walter B.          | 936  | St. Marks Ave.    |
| Clark, Frank H.           | 758  | Putnam Ave.       |
| Clark, Raymond            | 310  | Clinton Ave.      |
| Claussen, Curtis          | 1327 | Greene Ave.       |
| Clayland, John M.         | 152  | Hewes St.         |
| Cochran, George C.        | 1905 | Eighty-sixth St.  |
| Collins, Burnett C.       | 645  | St. Marks Ave.    |
| Colton, Frederick H.      | 136  | Montague St.      |
| Cornwall, Edward E.       | 1239 | Pacific St.       |
| Cosgrove, James E.        | 1137 | Fifty-eighth St.  |
| Costello, Patrick Vincent | 195  | Euclid Ave.       |
| Coughlin, Robert E.       | 428  | Forty-seventh St. |
| Cox, Charles N.           | 257  | Jefferson Ave.    |
| Crane, Claude G.          | 119  | Halsey St.        |
| Crawford, Frederick D.    | 369  | Clinton St.       |
| Crawford, John Fancher    | 236  | Carroll St.       |
| Cross, Frank Bethel       | 141  | Seventh Ave.      |
| Cruikshank, William J.    | 102  | Fort Greene Pl.   |

## D

|                          |      |                 |
|--------------------------|------|-----------------|
| Dangler, Henry W.        | 455  | Classon Ave.    |
| Dattlebaum, Maurice J.   | 1125 | Eastern Parkway |
| Davis, George H.         | 484a | McDonough St.   |
| Davis, William Henry     | 67   | Hanson Pl.      |
| De Coste, Stephen Hubert | 170  | Barbey St.      |
| Deely, George Edward     | 132  | Montague St.    |

|                              |      |                    |
|------------------------------|------|--------------------|
| Delatour, H. Beeckman.....   | 73   | Eighth Ave.        |
| De Long, William A.....      | 170  | Bainbridge St.     |
| De Lorme, Murrett F.....     | 70   | Greene Ave.        |
| DeWaltoff, Dayve.....        | 451  | Forty-seventh St.  |
| Dexter, Thurston H.....      | 411  | Hancock St.        |
| Dickert, John D.....         | 922  | Bushwick Ave.      |
| Dickinson, Robert L.....     | 168  | Clinton St.        |
| Dixon, Herbert S.....        | 141  | Lewis Ave.         |
| Dixon, Thomas.....           | 23   | Clinton St.        |
| Dowd, James H. B.....        | 3923 | Fort Hamilton Ave. |
| Downey, James M.....         | 381  | Clinton St.        |
| Doyle, Francis Benedict..... | 311  | State St.          |
| Droge, D. H.....             | 8    | Stuyvesant Ave.    |
| Drury, George.....           | 235  | Washington Ave.    |
| Dudley, William F.....       | 32   | Livingston St.     |
| Duffey, Francis J.....       | 148  | Bay Sixteenth St.  |
| Duffield, Warren L.....      | 119  | Berkeley Pl.       |
| Dumey, Charles.....          | 118  | McKibbin St.       |
| Durham, Roger.....           | 322  | Park Pl.           |
| Durkee, John W.....          | 142  | Clinton St.        |
| Dusseldorf, John E.....      | 191  | Lawrence Ave.      |

**E**

|                                |      |                |
|--------------------------------|------|----------------|
| Eastmond, Charles.....         | 67   | Hanson Pl.     |
| Edson, Benjamin.....           | 83   | St. Marks Ave. |
| Eichacker, Henry F.....        | 382  | Covert Ave.    |
| Erdmann, Adolph Frederick..... | 458  | Ninth St.      |
| Estabrook, C. R.....           | 9307 | Flatlands Ave. |

**F**

|                         |      |                       |
|-------------------------|------|-----------------------|
| Fairbairn, Henry A..... | 249  | McDonough St.         |
| Figueira, Mathias.....  | 14   | Stuyvesant Ave.       |
| Fiske, Edwin H.....     | 152  | Lafayette Ave.        |
| Fitzgerald, J. F.....   |      | Kings County Hospital |
| Fleming, James W.....   | 471  | Bedford Ave.          |
| Foote, Lewis N.....     | 147  | Hancock St.           |
| Fowler, Russell S.....  | 301  | DeKalb Ave.           |
| Fraser, Homer E.....    | 18   | South Portland Ave.   |
| French, Thomas R.....   | 150  | Joralemon St.         |
| Frischbier, Otto G..... | 690  | Bushwick Ave.         |
| Frost, Samuel.....      | 254  | Garfield Pl.          |
| Fuhs, Jacob.....        | 871  | Park Pl.              |
| Fulda, Carl.....        | 1096 | Halsey St.            |

**G**

|                                   |      |                  |
|-----------------------------------|------|------------------|
| Gallagher, James T.....           | 449  | Lafayette Ave.   |
| Geis, Norman P.....               | 1325 | Pacific St.      |
| Genthner, Philip J.....           | 384  | Court St.        |
| Gildersleeve, Charles P.....      | 18   | Schermerhorn St. |
| Goodrich, Charles H.....          | 280  | Park Pl.         |
| Gordon, Charles A.....            | 596  | Hancock St.      |
| Gordon, Onslow A.....             | 71   | Halsey St.       |
| Grant, Walter S.....              | 340  | Stuyvesant Ave.  |
| Griffing, George P.....           | 136  | Milton St.       |
| Griffiths, Albert Farnsworth..... | 1115 | Ocean Ave.       |
| Guenther, T. C.....               | 20   | Seventh Ave.     |



## H

|                               |      |                    |
|-------------------------------|------|--------------------|
| Hall, Gordon R.....           | 164  | Clinton St.        |
| Haller, J. Frederick.....     | 291  | Stuyvesant Ave.    |
| Hamlin, George D.....         | 1260 | Pacific St.        |
| Hancock, James Cole.....      | 135  | Cambridge Pl.      |
| Hancock, James W. D.....      | 426a | Halsey St.         |
| Harrigan, John .....          | 401  | Clinton St.        |
| Harrington, Burt D.....       | 525  | Ocean Ave.         |
| Harris, Burton .....          | 28   | Clifton Pl.        |
| Hatch, Edwin A.....           | 857  | Marcy Ave.         |
| Hawley, George R.....         | 203  | Gates Ave.         |
| Hegeman, Thomas B.....        | 2603 | Newkirk Ave.       |
| Henderson, George E.....      | 61   | Taylor St.         |
| Henry, Charles C.....         | 56   | Clark St.          |
| Herriman, Frank Richard.....  | 167  | Quincy St.         |
| Herriman, Rudolph L. F.....   | 1075 | Bushwick Ave.      |
| Hicks, Edward E.....          | 295  | Stuyvesant Ave.    |
| Hirseman, Walter G.....       | 408  | Clinton St.        |
| Hodges, Edward .....          | 156  | Halsey St.         |
| Hoffmann, Henry O.....        | 138  | Prospect Park West |
| Holden, Frederick C.....      | 63   | Seventh Ave.       |
| Horn, John .....              | 179  | Penn St.           |
| Horstman, August G.....       | 1241 | Hancock St.        |
| Howe, Alexander Coddling..... | 307  | Cumberland St.     |
| Hoxie, Edward Hazard.....     | 1    | Hart St.           |
| Hubbard, William S.....       | 1138 | Bergen St.         |
| Hulse, Clarence H.....        | 206  | Monitor St.        |
| Humpstone, O. Paul.....       | 105  | Greene Ave.        |
| Hussey, Augustus A.....       | 295  | Hancock St.        |
| Hyde, Clarence R.....         | 126  | Joralemon St.      |

## I

|                       |      |                    |
|-----------------------|------|--------------------|
| Ingalls, James W..... | 874  | Lafayette Ave.     |
| Ives, Robert F.....   | 8504 | Twenty-second Ave. |

## J

|                                 |      |                  |
|---------------------------------|------|------------------|
| Jackman, Luther Taylor.....     | 257  | Twelfth St.      |
| Jameson, P. Chalmers.....       | 139  | Montague St.     |
| Jenkins, Charles Rivington..... | 600  | Lorimer St.      |
| Jennings, John E.....           | 164  | Halsey St.       |
| Jewett, Frederick A.....        | 282  | Hancock St.      |
| Jewett, Harold F.....           | 1072 | Bergen St.       |
| Jewett, William A.....          | 380  | Vanderbilt Ave.  |
| Joachim, Henry.....             | 2    | Brevoort Pl.     |
| Joerg, Oswald .....             | 12   | Schermerhorn St. |
| Joiner, William E.....          | 582  | Bedford Ave.     |
| Judd, Albert Martin.....        | 375  | Grand Ave.       |

## K

|                        |     |                 |
|------------------------|-----|-----------------|
| Kasper, Gerard .....   | 714 | Macon St.       |
| Keil, Peter A.....     | 164 | Arlington Ave.  |
| Kene, Joseph A.....    | 64  | Greene Ave.     |
| Kennedy, James C.....  | 762 | Willoughby Ave. |
| Kerr, Le Grand.....    | 42  | Gates Ave.      |
| Kevin, J. Richard..... | 252 | Gates Ave.      |

|                                |      |                 |
|--------------------------------|------|-----------------|
| Keyes, James J.....            | 226  | Seventeenth St. |
| Kinne, William.....            | 48   | Fourth Ave.     |
| Kirk, F. James.....            | 233  | Weirfield St.   |
| Knause, B. Frank.....          | 1076 | Bushwick Ave.   |
| Koerner, William F.....        | 154  | Rodney St.      |
| Konther, Adolph Frederick..... | 184  | Ridgewood Ave.  |
| Kuhn, George R.....            | 122  | Clinton Ave.    |

## L

|                                |     |                    |
|--------------------------------|-----|--------------------|
| Lack, C. Eugene.....           | 692 | Tenth St.          |
| Lamadrid, Julio J.....         | 412 | Greene Ave.        |
| Langstaff, Lewis G.....        | 175 | Sixth Ave.         |
| Lanza, Michele.....            | 195 | President St.      |
| Larralde, Pedro J.....         | 214 | Union Ave.         |
| Lawrence, Andrew Wilson.....   | 558 | Bedford Ave.       |
| Leavitt, Emanuel Joseph.....   | 717 | Bushwick Ave.      |
| Lee, John A.....               | 23  | Revere Pl.         |
| Lester, John C.....            | 175 | Schermerhorn St.   |
| Lewis, Maurice T.....          | 414 | Fifty-fifth St.    |
| Lindridge, Edward F.....       | 424 | Vanderbilt Ave.    |
| Lintz, William.....            | 907 | St. Marks Ave.     |
| Little, George F.....          | 469 | Clinton Ave.       |
| Little, William A.....         | 923 | Bedford Ave.       |
| Loewe, Jacques.....            | 71  | McKibbin St.       |
| Longmore, John A.....          | 26  | Schermerhorn St.   |
| Longstreet, Arthur Hubert..... | 20  | Seventh Ave.       |
| Louria, Leon.....              | 249 | Hewes St.          |
| Love, Cornelius R.....         | 167 | Clinton St.        |
| Lübrecht, Charles A.....       | 966 | Bedford Ave.       |
| Lucas, David F.....            | 552 | Pacific St.        |
| Ludlum, Walter J.....          | 262 | East Fifteenth St. |
| Luhrsen, Ernest Frederick..... | 292 | Greene Ave.        |
| Lutz, Stephen H.....           | 284 | Hancock St.        |

## M

|                                 |      |                  |
|---------------------------------|------|------------------|
| MacCoy, Cecil.....              | 151  | Clinton St.      |
| MacEvitt, James.....            | 514  | Ninth St.        |
| MacEvitt, John C.....           | 407  | Clinton St.      |
| MacGilvary, Stanley H.....      | 822  | Bedford Ave.     |
| MacNaughton, Donald Stuart..... | 479  | Clinton Ave.     |
| MacVean, Charles H.....         | 1315 | Fifty-second St. |
| Mack, C. F.....                 | 1340 | Gates Ave.       |
| Macumber, John L.....           | 249  | Washington Ave.  |
| McChesney, Herman Franklin..... | 90   | Halsey St.       |
| McClelland, Lefferts A.....     | 78   | McDonough St.    |
| McCorkle, John A.....           | 149  | Clinton St.      |
| McEntee, Edward J.....          | 196  | Hancock St.      |
| McNamara, Sylvester James.....  | 369  | Union St.        |
| McNaughton, George.....         | 479  | Clinton Ave.     |
| Maddren, William Harvey.....    | 1    | Hanson Pl.       |
| Manecke, Phillip.....           | 1058 | Bushwick Ave.    |
| Mangan, Daniel C.....           | 95   | Park Ave.        |
| Manley, Mark.....               | 261  | Monroe St.       |
| Manning, Charles Edward.....    | 480  | Putnam Ave.      |
| Marsh, Edward F.....            | 448  | Ninth St.        |
| Marshall, Joseph Hall.....      | 536  | Monroe St.       |



|                           |      |                                             |
|---------------------------|------|---------------------------------------------|
| Matheson, A. Ross.....    | 37   | Seventh Ave.                                |
| Matheson, Sewall.....     | 173  | Underhill Ave.                              |
| Matson, Nathaniel.....    | 1249 | Pacific St.                                 |
| Mayne, Earl H.....        | 8744 | Eighteenth Ave.                             |
| Medd, John C.....         | 210  | Garfield Pl.                                |
| Merzbach, Joseph.....     | 198  | Eighth Ave.                                 |
| Meyer, Joseph.....        | 216  | Van Buren St.                               |
| Michel, Leo L.....        | 173  | Hooper St.                                  |
| Miller, Francis H.....    | 64   | Pennsylvania Ave.                           |
| Miller, George Isaac..... | 700  | St. Marks Ave.                              |
| Miller, Lewis H.....      | 109  | Halsey St.                                  |
| Mills, Henry M.....       | 192a | Sixth Ave.                                  |
| Moitrier, William.....    | 454  | Putnam Ave.                                 |
| Monaghan, Frank J.....    | 1069 | Bushwick Ave.                               |
| Moore, S. Edward.....     | 1332 | Myrtle Ave.                                 |
| Morris, Edward J.....     | 488  | Ninth St.                                   |
| Morrison, Robert J.....   | 354  | Tompkins Ave.                               |
| Morton, Henry H.....      | 32   | Schermerhorn St.                            |
| Morton, Lawrence J.....   |      | Fort Hamilton Parkway and Eighty-eighth St. |
| Mosher, Burr Burton.....  | 44   | Court St.                                   |
| Moxom, Philip W. T.....   | 1807 | Ditmas Ave.                                 |
| Munson, Forbes J.....     | 330a | Lafayette Ave.                              |
| Muren, G. Morgan.....     | 36   | Orange St.                                  |
| Murray, Archibald.....    | 361  | Henry St.                                   |

## N

|                             |     |                               |
|-----------------------------|-----|-------------------------------|
| Napier, Charles Dwight..... | 494 | Washington Ave.               |
| Nash, Philip Ingram.....    |     | Neptune Ave. and Cortland St. |
| Nichols, Louis L.....       | 386 | Stuyvesant Ave.               |
| North, Nelson L.....        | 150 | Hancock St.                   |
| Northridge, Thomas H.....   | 320 | Cumberland St.                |
| Northridge, William A.....  | 402 | Washington Ave.               |

## O

|                          |     |                  |
|--------------------------|-----|------------------|
| O'Connell, Joseph J..... | 190 | Eighth Ave.      |
| Ohly, John H.....        | 22  | Schermerhorn St. |
| Ostrander, George A..... | 61  | Greene Ave.      |
| Otis, F. Burton.....     | 369 | Hancock St.      |

## P

|                           |      |                  |
|---------------------------|------|------------------|
| Paffard, Frederick C..... | 238  | Clinton St.      |
| Palmer, Ernest.....       | 155  | Clinton St.      |
| Pentlarge, Victor H.....  | 380  | Sterling Pl.     |
| Peterman, Charles P.....  | 809a | Greene Ave.      |
| Pettit, Henry S.....      |      | Adelphi College  |
| Philleo, Willis H.....    | 155  | Herkimer St.     |
| Pilcher, Lewis S.....     | 145  | Gates Ave.       |
| Pilcher, Paul Monroe..... | 145  | Gates Ave.       |
| Polak, John O.....        | 287  | Clinton Ave.     |
| Pomeroy, Ralph H.....     | 511  | Nostrand Ave.    |
| Pool, William P.....      | 147  | Clinton St.      |
| Potter, Alfred.....       | 491  | Eighth St.       |
| Price, Henry R.....       | 435  | Clinton Ave.     |
| Prout, Jonathan S.....    | 26   | Schermerhorn St. |

## Q

Quell, John A.....478 Decatur St.

## R

Rae, Alexander .....117 Henry St.  
 Rankin, John .....600 Jefferson Ave.  
 Rankin, William H.....151 Hancock St.  
 Rathbun, Nathaniel P.....442 Greene Ave.  
 Rauth, Emil.....695 Lafayette Ave.  
 Raynor, Frank C.....157 Clinton St.  
 Read, Henry N.....228 Clinton St.  
 Read, John S.....228 Clinton St.  
 Reb, John H.....328 Jay St.  
 Reed, George E.....737 Putnam Ave.  
 Reeve, Albert L.....420 Gold St.  
 Reichers, George Henry.....1411 Bushwick Ave.  
 Reynolds, Willard G.....516 Nostrand Ave.  
 Roberts, Dudley D.....84 Remsen St.  
 Robertson, Victor A.....834 Union St.  
 Rogers, Herbert C.....377 Gates Ave.  
 Rogers, H. Edward.....813 Willoughby Ave.  
 Rosecrans, William Brink.....1494 Greene Ave.  
 Ross, Walter H.....215 Jefferson Ave.  
 Royce, Rubert S.....211 Greene Ave.  
 Rushmore, Jacques C.....477 Washington Ave.  
 Russell, Julien W.....6 Plaza St.

## S

Salmon, Armond J.....166 Sands St.  
 Sauer, C. Theodore.....284 Sixth Ave.  
 Schauf, Adam.....198 Vernon Ave.  
 Schelling, Henry L.....264 Stuyvesant Ave.  
 Schirmer, William C.....596 St. Marks Ave.  
 Schlitz, Francis Augustus.....28 Jefferson St.  
 Schoenijahn, W. Carl.....822 Union St.  
 Schroeder, Frederick, Jr.....22 St. Johns Pl.  
 Schroeder, William.....339 President St.  
 Scofield, Charles Edward.....72 Lee Ave.  
 Scott, Peter.....126 New York Ave.  
 Search, Charles J.....453 Franklin Ave.  
 Shea, J. Denton.....427 Eighth Ave.  
 Shepard, William H.....415 Fifty-sixth St.  
 Sheppard, John E.....130 Montague St.  
 Sherman, Wesley.....336 Ninth St.  
 Sherwell, Samuel.....33 Schermerhorn St.  
 Sherwood, Walter A.....298 Garfield Pl.  
 Shipley, Alfred E.....111 Halsey St.  
 Shoop, Frederick J.....230 St. James Pl.  
 Simmons, Warren S.....216 St. James Pl.  
 Simmons, William.....23 Schermerhorn St.  
 Simrell, George W.....151 Hawthorn St.  
 Skelton, Eugene Wilson.....296 Sixth Ave.  
 Sloat, Horace M.....149 Van Buren St.  
 Smith, Edward J.....2016 Albemarle Road  
 Smith, George Albert Hayes.....313 Sixth Ave.  
 Smith, Henry Mitchell.....113 Montague St.



|                               |                       |
|-------------------------------|-----------------------|
| Smith, J. Wheeler.....        | 685 St. Marks Ave.    |
| Smith, William Sidney.....    | 373 Washington Ave.   |
| Somers, James Alpheus.....    | 96 Greene Ave.        |
| Spence, Thomas B.....         | 139 Seventh Ave.      |
| Stammler, Charles Edward..... | 193 St. Nicholas Ave. |
| Sterling, John H.....         | 45 Hanson Pl.         |
| Stern, Bernard.....           | 2604 Avenue F         |
| Stevens, Joseph William.....  | 835 Hancock St.       |
| Stickle, Charles W.....       | 130 Montague St.      |
| Stivers, George L.....        | 303 Vanderbilt Ave.   |
| Stivers, John R.....          | 180 Lefferts Pl.      |
| Stoney, Frank E. A.....       | 229 Eighty-second St. |
| Straub, George C.....         | 846 St. Johns Pl.     |
| Sturges, Purdy H.....         | 145 Seventh Ave.      |
| Sullivan, John D.....         | 74 McDonough St.      |

## T

|                            |                            |
|----------------------------|----------------------------|
| Taddikin, Paul G.....      | Long Island State Hospital |
| Tag, Charles H.....        | 284 Jefferson Ave.         |
| Tarbox, Harry R.....       | 1178 Dean St.              |
| Taylor, John M.....        | 214 Eighth Ave.            |
| Taylor, J. Richard.....    | 1275 Bedford Ave.          |
| Taylor, Stephen L.....     | 644 St. Marks Ave.         |
| Thayer, Nathan P.....      | 1433 Avenue H              |
| Thomas, Jerome B.....      | 64 Montague St.            |
| Thompson, James E.....     | 223 Greene Ave.            |
| Tilney, Frederick.....     | 161 Henry St.              |
| Todd, Joseph F.....        | 402 Sterling Pl.           |
| Tomes, William Austin..... | 500 Classon Ave.           |
| Townsend, Palmer.....      | 588 Jefferson Ave.         |
| Treadwell, George H.....   | 64 South Portland Ave.     |
| Truslow, Walter.....       | 494 Washington Ave.        |
| Tuthill, James Y.....      | 100 Fort Greene Pl.        |

## V

|                         |               |
|-------------------------|---------------|
| Van Cott, Joshua M..... | 188 Henry St. |
|-------------------------|---------------|

## W

|                             |                     |
|-----------------------------|---------------------|
| Wade, H. Albert.....        | 495 Greene Ave.     |
| Wadsworth, Emory M.....     | 103 McDonough St.   |
| Wagner, John J.....         | 28 Seventh Ave.     |
| Walsh, Joseph William.....  | 154 McDonough St.   |
| Warbasse, James P.....      | 386 Washington Ave. |
| Waterman, James Sears.....  | 676 St. Marks Ave.  |
| Waugh, Darwin W.....        | 388 Clinton St.     |
| Waugh, Henry H.....         | 39 Schermerhorn St. |
| Webster, Henry Goodwin..... | 162 Halsey St.      |
| Weed, Ver Nooy W.....       | 1238 Halsey St.     |
| West, Frank E.....          | 67 Hanson Pl.       |
| Westbrook, Richard W.....   | 1145 Dean St.       |
| Wheeler, Robert T.....      | 209 Hewes St.       |
| White, Morris Gardner.....  | 98 Gates Ave.       |
| Wight, J. Sherman.....      | 30 Schermerhorn St. |
| Williams, George A.....     | 449 Hancock St.     |
| Williams, Herbert F.....    | 416 Grand Ave.      |

|                                    |                       |
|------------------------------------|-----------------------|
| Williams, John G.....              | 753a Union St.        |
| Williams, Ralph Clark.....         | 515 Forty-seventh St. |
| Williamson, Charles E.....         | 841 Willoughby Ave.   |
| Wilson, Edwin B.....               | 80 Fenimore St.       |
| Wilson, Frank E.....               | 1242 Bushwick Ave.    |
| Winfield, James M.....             | 47 Halsey St.         |
| Wood, J. Scott.....                | 172 Sixth Ave.        |
| Wood, Walter C.....                | 1276 Pacific St.      |
| Woolsey, William C.....            | 88 Lafayette Ave.     |
| Wunderlich, Frederick William..... | 8 Sidney Pl.          |

## Y

|                        |                   |
|------------------------|-------------------|
| Yerdon, Charles F..... | 1276 Herkimer St. |
|------------------------|-------------------|

## Z

|                          |                     |
|--------------------------|---------------------|
| Zimmerman, Victor L..... | 271 Stuyvesant Ave. |
|--------------------------|---------------------|

---

 QUEENS, NASSAU AND SUFFOLK COUNTIES.

## A

|                           |                                   |
|---------------------------|-----------------------------------|
| Adams, Robert Albert..... | Whitestone                        |
| Allen, S. P.....          | Riverhead                         |
| Ambler, Alfrecs S.....    | 611 Thirteenth St., College Point |
| Anderson, Andrew J.....   | 28 Stevens St., Long Island City  |
| Auger, Henry M.....       | Jamaica                           |

## B

|                            |                                                  |
|----------------------------|--------------------------------------------------|
| Baker, Clarence A.....     | Yaphank                                          |
| Baker, William A.....      | Islip                                            |
| Baldwin, L. C.....         | Bellport                                         |
| Barker, H. L.....          | Woodside                                         |
| Barnes, Irving F.....      | Oyster Bay                                       |
| Barnhardt, W. N.....       | Central Islip                                    |
| Barry, John H.....         | 153 Eleventh St., Long Island City               |
| Baum, Joseph.....          | 75 Mott Ave., Far Rockaway                       |
| Benjamin, Frank E.....     | Shelter Island                                   |
| Benjamin, John H.....      | Riverhead                                        |
| Blanchard, A. J.....       | Jamaica                                          |
| Bloodgood, John F.....     | Flushing                                         |
| Bodine, L. A. S.....       | East Hampton                                     |
| Boettinger, C.....         | 440 Ditmas Ave., Long Island City                |
| Bogart, John H.....        | Roslyn                                           |
| Boorum, H. E.....          | Cor. Lincoln and Village Aves., Rockville Centre |
| Bray, Dallas G.....        | Sayville                                         |
| Briggs, A. Francis.....    | 139 Fifth St., Long Island City                  |
| Brundage, John D.....      | Westhampton Beach                                |
| Brush, Barton W.....       | Woodside                                         |
| Bulkley, J. Lyman, Jr..... | 138 Oak St., Richmond Hill                       |
| Bumster, P. H.....         | 36 Ely Ave., Long Island City                    |
| Burnett, W. J.....         | 127 Third St., Long Island City                  |
| Burns, James E.....        | Glen Cove                                        |
| Burns, William J.....      | Glen Cove                                        |



## C

|                               |                            |
|-------------------------------|----------------------------|
| Capron, A. C.....             | Kings Park                 |
| Carman, E. ....               | Freeport                   |
| Carter, G. Herbert.....       | Huntington                 |
| Chattle, T. H.....            | Good Ground                |
| Cleghorn, Charles Dalton..... | Garden City                |
| Cleghorn, Guy F.....          | Mineola                    |
| Cocke, William I.....         | Port Washington            |
| Coffin, L. ....               | Bay Shore                  |
| Combes, Abbott C.....         | Elmhurst                   |
| Cooke, Tyler Gibson.....      | 177 Elm St., Richmond Hill |
| Cooley, James S.....          | Glen Cove                  |
| Corwith, Silas R.....         | Bridgehampton              |

## D

|                        |                  |
|------------------------|------------------|
| Davis, Milton B.....   | Patchogue        |
| De Lano, Frank T.....  | Rockville Centre |
| Dietrich, A. E.....    | Bay Shore        |
| Dildine, Frank C.....  | Port Jefferson   |
| Donahue, George H..... | Northport        |
| Dow, H. D.....         | Maspeth          |
| Dowsey, George H.....  | Great Neck       |

## E

|                     |              |
|---------------------|--------------|
| Edwards, David..... | East Hampton |
|---------------------|--------------|

## F

|                                |                                    |
|--------------------------------|------------------------------------|
| Faller, George W.....          | Oyster Bay                         |
| Fensterer, Gustav A.....       | Floral Park                        |
| Finch, F. A.....               | Amagansett                         |
| Fincke, Harry Stark.....       | Astoria                            |
| Flemming, Edward Albert.....   | 213 Maple St., Richmond Hill       |
| Fletcher, Frederick W.....     | Freeport                           |
| Folger, Rupert .....           | Whitestone                         |
| Forbes, George.....            | 307 Jamaica Ave., Long Island City |
| Foster, J. M.....              | Valley Stream                      |
| Fowler, P. Van Benschoten..... | Centre Moriches                    |
| Frey, Walter G.....            | 44 Ely Ave., Long Island City      |

## G

|                        |                            |
|------------------------|----------------------------|
| Gibson, H. G., Jr..... | Central Islip              |
| Gibson, William B..... | Huntington                 |
| Grimmer, R. D.....     | 262 Fulton Ave., Hempstead |

## H

|                           |                                 |
|---------------------------|---------------------------------|
| Hallinan, Joseph D.....   | 29 Lefferts Ave., Richmond Hill |
| Halsey, Hugh .....        | Southampton                     |
| Halsey, James L.....      | Islip                           |
| Harding, James R.....     | Amityville                      |
| Harrison, Daniel A.....   | Box 15, Whitestone              |
| Hartranft, J. M.....      | Southold                        |
| Hawkes, Forbes .....      | Port Washington                 |
| Hendrickson, Samuel ..... | Jamaica                         |
| Hewlett, Harold E.....    | Babylon                         |

|                          |                  |
|--------------------------|------------------|
| Hewlett, William W.....  | Babylon          |
| Heyen, John P.....       | Northport        |
| Hinckley, F.....         | Central Islip    |
| Higgins, Aaron L.....    | Rockville Centre |
| Houghton, Harris A.....  | Bayside          |
| Hulse, William A.....    | Bay Shore        |
| Hunter, G. S.....        | Sag Harbor       |
| Hutcheson, J. Ensor..... | Rockville Centre |

## J

|                       |                         |
|-----------------------|-------------------------|
| Jagger, Archer W..... | 410 Amity St., Flushing |
| Jaques, A. D.....     | Lynbrook                |

## K

|                            |                           |
|----------------------------|---------------------------|
| Keays, Frederick Love..... | Great Neck                |
| Kerrigan, Joseph A.....    | Hempstead                 |
| Kindred, John Joseph.....  | Astoria                   |
| Kittell, Martin M.....     | 180 Shelton Ave., Jamaica |

## L

|                           |                               |
|---------------------------|-------------------------------|
| Lanehart, Louis Nott..... | Hempstead                     |
| Lawrence, Enoch P.....    | 147 Amity St., Flushing       |
| Lehman, Max.....          | 431 Fresh Pond Road, Glendale |
| Lindsay, Walter.....      | Huntington                    |
| Lippman, Thomas C.....    | Sag Harbor                    |
| Loper, Arthur C.....      | Greenport                     |
| Luce, Charles A.....      | Amityville                    |
| Ludlum, Charles H.....    | Hempstead                     |

## M

|                           |                                         |
|---------------------------|-----------------------------------------|
| MacClymont, D. C.....     | Kings Park                              |
| MacDonald, Henry.....     | Morris Park                             |
| MacLean, B. P.....        | Huntington                              |
| McCrea, Frederic L.....   | Port Jefferson                          |
| McKenna, Henry J.....     | 113 Fifth St., Long Island City         |
| McKeown, Patrick.....     | 141 Third St., Long Island City         |
| Macy, William A.....      | Kings Park                              |
| Malcolm, William J.....   | Jericho                                 |
| Mann, John.....           | Old Westbury                            |
| Many, Bradley F.....      | Port Jefferson                          |
| Markham, Convas L.....    | Amityville                              |
| Marshall, Samuel A.....   | 143 Second Ave., Long Island City       |
| Merritt, Frederick C..... | Sayville                                |
| Meynen, George K.....     | Jamaica                                 |
| Miles, Clarence C.....    | Greenport                               |
| Moore, Edwin S.....       | Bay Shore                               |
| Moore, J. P.....          | Astoria                                 |
| Moss, L. Howard.....      | Elm St. and Orchard Ave., Richmond Hill |
| Mulcahy, William L.....   | 3 Cornaga Ave., Far Rockaway            |

## N

|                         |                    |
|-------------------------|--------------------|
| Neail, Howard W.....    | 7 Ray St., Jamaica |
| Niesley, Charles M..... | Manhasset          |
| Nugent, John.....       | Southampton        |



## O

|                        |           |
|------------------------|-----------|
| O'Hanlon, George ..... | Riverdale |
| Overton, Frank .....   | Patchogue |

## P

|                            |                           |
|----------------------------|---------------------------|
| Pattengill, Hanford C..... | 212 Shelton Ave., Jamaica |
| Payne, Albert E.....       | Riverhead                 |
| Pershing, Edward H.....    | Woodmere                  |
| Peterson, Frederick C..... | Smithtown                 |

## R

|                           |                             |
|---------------------------|-----------------------------|
| Rave, Adolph G.....       | Hicksville                  |
| Rave, Edward G.....       | Hicksville                  |
| Rhame, William .....      | Wantagh                     |
| Rodger, Davis R.....      | 88 Union Pl., Richmond Hill |
| Roe, William H.....       | Patchogue                   |
| Rogers, Benjamin F.....   | Eastport                    |
| Ross, C. A.....           | Queens                      |
| Ross, William Holmes..... | Sayville                    |
| Ross, William H.....      | Brentwood                   |

## S

|                                |                                 |
|--------------------------------|---------------------------------|
| Savage, William B.....         | East Islip                      |
| Schirck, Frederick Foster..... | Mineola                         |
| Schmuck, J. Carl.....          | Lawrence                        |
| Schweikart, Frederick J.....   | 26 Vietor Pl., Elmhurst         |
| Scovil, William T.....         | Richmond Hill                   |
| Seaman, Benjamin W.....        | Lincoln Ave., Rockville Centre  |
| Sheridan, Joseph P.....        | Morris Park                     |
| Shipman, Elliott W.....        | 446 Church St., Richmond Hill   |
| Skidmore, Melville.....        | Centre Moriches                 |
| Skinner, Barton D.....         | Greenport                       |
| Skinner, Erasmus D.....        | Mineola                         |
| Slocum, Millard M.....         | Far Rockaway                    |
| Smith, George A.....           | Central Islip                   |
| Spiro, William Warren.....     | 116 Third St., Long Island City |
| Stanley, Grant .....           | Sea Cliff                       |
| Steele, W. J.....              | Baldwins                        |
| Stokes, John W.....            | Southold                        |
| Stone, William Metcalf.....    | 63 Jamaica Ave., Flushing       |
| Stumpf, Conrad Otto.....       | Queens                          |

## T

|                         |                                  |
|-------------------------|----------------------------------|
| Terry, Arthur H.....    | Patchogue                        |
| Thompson, Arthur W..... | 224 South Parsons Ave., Flushing |
| Turrell, Guy H.....     | Smithtown Branch                 |

## U

|                       |            |
|-----------------------|------------|
| Ullman, Albert E..... | Kings Park |
|-----------------------|------------|

## V

|                       |                           |
|-----------------------|---------------------------|
| Van Deinse, A. P..... | Sayville                  |
| Vaux, George L.....   | Central Islip             |
| Voltz, Albert L.....  | 514 Manor Ave., Woodhaven |

## W

|                          |                              |
|--------------------------|------------------------------|
| Wadhams, Noah S.....     | Westhampton Beach            |
| Wahlig, Herman G.....    | Sea Cliff                    |
| Waldo, Ralph .....       | Westhampton                  |
| Warner, Henry W.....     | Hempstead                    |
| Weekes, William C.....   | Babylon                      |
| Wellbrock, Walter B..... | Good Ground                  |
| Wells, Charles E.....    | Sag Harbor                   |
| West, Calvin B.....      | Central Islip                |
| Whitney, C. E.....       | Central Islip                |
| Willis, W. Charles.....  | 272 East Main St., Patchogue |
| Wilsey, O. J.....        | Amityville                   |
| Witmer, A. F.....        | Freeport                     |
| Wood, Philip M.....      | 448 Fulton St., Jamaica      |
| Wood, Samuel A.....      | 167 Fifth St., Elmhurst      |

## Z

|                           |           |
|---------------------------|-----------|
| Zabriskie, William H..... | Glen Cove |
|---------------------------|-----------|

## BOROUGH OF MANHATTAN.

|                         |                    |
|-------------------------|--------------------|
| Emery, Z. Taylor.....   | 66 Broadway        |
| De Forest, Henry P..... | 150 West 47th St.  |
| Durand, A. Walter.....  | 31 Nassau St.      |
| Manning, Gus R.....     | 447 Lexington Ave. |

## NEW YORK STATE.

|                        |                                        |
|------------------------|----------------------------------------|
| Elliott, Robert M..... | Willard State Hospital, Willard, N. Y. |
| Bacon, Charles B.....  | City Hospital, Blackwell's Island      |

## NEW JERSEY.

|                      |           |
|----------------------|-----------|
| Trask, James D.....  | Highlands |
| Bell, J. Finley..... | Englewood |

## HONORARY MEMBERS.

|                                                 |                                    |
|-------------------------------------------------|------------------------------------|
| Theodore Roosevelt.....                         | Ex-President of the United States  |
| Leonard Wood.....                               | Major-General United States Army   |
| Paul Eugene Jones (Legal Counsel) ..            | Mechanics' Bank Building, Brooklyn |
| William James Morton .....                      | 19 East 28th St., New York City    |
| George Henry Fox.....                           | 616 Madison Ave., New York City    |
| George G. Scott.....                            | College of the City of New York    |
| Harvey W. Wiley,                                |                                    |
| Chief Chemist of the Department of Agriculture, | Washington, D. C.                  |



# LONG ISLAND MEDICAL JOURNAL

VOL. IV

SEPTEMBER, 1910

No. 9

## PRESIDENT'S ADDRESS. SUFFOLK COUNTY MEDICAL SOCIETY.\*

By MARCUS B. HEYMAN, M.D.,

CENTRAL ISLIP, L. I.

IT has been the custom, in time past, for the President of the County Medical Society to present some formal remarks on a medical topic of general interest to the members of the Society, embracing some practical sphere in which all may co-operate.

We look with pride upon the magnificent triumphs of Medical Science—those glorious conquests in the interminable warfare against disease. Antiseptic surgery; quarantine regulations; the control and prevention of zymotic diseases; the hospital system; the results of research into the origin and nature of disease; the progress of therapy; all flow freely to our minds and the contemplation of any or all of these boons to humanity stirs us with enthusiasm and makes us honorably proud of our profession.

My somewhat extended experience in the treatment of the insane, however, has led me to look for some of the subtler causes that are still secretly and steadily producing privation and misery among the people, especially in the most civilized communities.

The topic, therefore, to which I shall invite your attention, on this

occasion, is one which might truly be called a disease of civilization—the patent medicine evil. It has grown from small beginnings to its present colossal dimensions chiefly during the past thirty years and now ranks as one of the great enterprises of the age. It is a sad reflection upon our present civilization that the phenomenal advance in knowledge of human disease has been accompanied, in so many instances, by a misdirection of its beneficent intentions. Strange it may seem to see knowledge and ignorance so intimately associated.

While medical science has been making such brilliant progress there has developed with it a parallel movement that is doing much to nullify the salutary purposes of the healing art. While the valiant generals of the scientific campaign against disease have been leading their forces from victory to victory they have been accompanied by a host of camp-followers who prowl along their line of march and who are still more despicable than the camp-followers of the ancient Oriental armies for they are not content to rob the dead on battlefields, but mutilate, poison and despoil

\*October 28, 1909.

the living helpless sufferers from chronic diseases. No sooner is a new discovery in medicine announced or a useful remedy discovered than it is seized upon by some unscrupulous quack and exploited for his own aggrandizement or in a manner directly opposite to which it was originally intended. In this way there has arisen a whole army of medical pretenders—quacks, charlatans and abortionists; hypnotists, spiritists and faith-healers who flagrantly flaunt their spurious claims before an innocent and unsuspecting community and whose methods and tactics have been sanctioned by the church aided by the press and tolerated by the medical profession in this boasted age of progress and enlightenment.

The chief factors which act as agents and lend force to this retrograde movement may be separated into three.

(1) The credulity, ignorance and gullability of the people respecting disease and the remedies for its cure.

(2) The avarice, cupidity, duplicity and fraud of a few quacks or pretenders who claim to have discovered a panacea for all the ills that flesh is heir to and who strive, by the most modern business methods, to enrich themselves at the expense of the innocent, weak, and unwary.

(3) The publicity that is given to the pretensions of these pseudo-medical impostors by the press and postal authorities.

It cannot be denied that disease is widespread and prevalent among the people even in this age of enlightenment. Tuberculosis, cancer, pneumonia, rheumatism, heart-disease, children's ailments and a host of other major and minor complaints are annually hurrying hundreds of thou-

sands of victims to premature graves while ten times their number are rendered weak, miserable and impoverished by causes of which they are entirely ignorant. Nor is it to be wondered at that these victims of pain and suffering from chronic disease should concern themselves about their relief and possible cure. Like drowning men they eagerly grasp at the smallest aid that comes within their reach. They thus become easy victims of the fraudulent practices, loud claims and false promises of patent medicine vendors and other ignorant, designing, medical pretenders.

As the sum of knowledge of disease has increased and the remedies for its relief and treatment have become more numerous the methods of quacks have become still more deceptive, their promises more imposing and their claims more alluring. Every illness and weakness of mankind has been exploited by these blatant scoundrels. The means they have contrived are no less astounding. Magnetic shoes and electric belts; ointments, snuff, pills, powders and potions; paper, cloth and sand; suggestions, vibrations, absent treatment and prayers have each been heralded broadcast and positively announced as a sure cure for all the diseases on the medical calendar in return, in most cases, for all the dollars the deluded victims possess.

Vendors of proprietary remedies, and other medical pretenders are enterprising and, therefore, advertise. Their cloak of respectability as well as their medium of publicity is the press. Newspapers, magazines, periodicals and pamphlets as well as fences and farm buildings proclaim the wonders of their wares, the virtues of their nostrums, their lying



statements and impossible claims and, therefore, become a party to the fraud. There are exceptions, but like angels' visits they are few and far between.

Take up almost any newspaper or church periodical and you will find falsehood, deceit and immorality glaring at you from its pages under the various captions. Some of these nostrums are truly wonderful and claim to cure all diseases—rheumatism, baldness and fits; consumption, catarrh, writer's cramp and yellow fever; lost manhood, wrinkles and female weakness. In many instances the virtues and curative powers of these remedies are attested by the recommendation, signature and photograph of some clergyman, actress, lawyer, or other little great man or woman and when traced to their source are almost invariably found to be fraudulent. In fact, it has been found that the photographs, testimonials and signatures complete can be bought by the score, or by the hundreds, from clearing-houses that flourish upon this branch of the patent medicine fraud and upon this branch alone.

A study which was published in *Collier's Weekly*, some time ago, and which is familiar to all of you, showed the nature of some of these nostrums and proved that their popularity and salability depended upon the amount of alcohol, cocaine, morphine or anti-febrin which they contained, or upon their claim to produce female regularity, or to restore lost manhood. There have already been published many instances of habit or addiction to these remedies and alcoholism, cocaineism, insanity and death have followed the use of some of them. Is it not time that the medical profes-

sion made some attempt to interfere in this business for the protection of the people? What human depravity can be conceived of more despicable and dangerous than to attract the attention of a weak, suffering, invalid woman, by extravagant claims and lying statements, to a remedy that increases her misery, dashes the hopes of her friends, takes her purse and steals away her mind? The Federal government has commenced an attack upon the evil by the enforcement of the pure food law. The representative of the bureau of health should be encouraged and supported in this difficult task by the co-operation of the medical profession. It will, indeed, require the combined efforts of all the representatives of the people to bring this great work to a satisfactory completion. There will be opposition but it must be strenuously combatted. It will be chiefly the opposition of the unscrupulous individuals who pile up large fortunes that are filched from the victims of disease by reason of their suffering, weakness and credulity. Every representative of the people should be willing to do his duty to resist this protean evil. How much longer will District Attorneys continue to permit abortionists to flaunt their criminal claims in the newspapers? And how long are publishers going to continue to be the voluntary accessories of the abortionists?

It is melancholy, indeed, to reflect that all this vice, this sordid immorality, this traffic in human misery, those disappointed hopes and consequent despair of so many sufferers from dreadful disease, has been aided, encouraged and culminated by one of the greatest boons to humanity, one of the most important forces in civilization—the press. Without its

co-operation this evil could scarcely exist and would certainly not have grown to its present proportions.

We are aware of the enormity of the patent medicine evil. Not a day passes that we do not see its damaging results. Let us be charitable, it necessary, and admit that some of the proprietors, agents and publishers of the fraud are ignorant of the harm they are doing. Our duty in the matter is clear. This evil would be short-lived, indeed, if only newspapers could be induced to drop the false and immoral statements from their advertising pages. We, who know, should make an effort to lay before the publishers of the fraud our opinions respecting it and thus attack the monster at the most vulnerable point. I hold the press is such respect that I firmly believe it would cease to advertise remedies that are injurious and claims regarding them that are false and impossible if the matter were brought plainly to its attention by the medical profession.

This work can be done by the County Medical Societies. There is

no field of greater usefulness in which they may exert their organized influence for the benefit of the people than in counteracting or preventing the evil tendencies of this gigantic fraud. I trust this Society is willing to do its share by laying the matter truthfully and forcibly before the proprietors and publishers of the newspapers in this county. We are organized for the interchange of opinions, the advancement of knowledge, and to promote the general welfare of all the people. The medical profession occupies an important place in the social system and economies of a nation.

We should not only be torch-bearers for the enlightenment of the people, regarding their bodily and mental welfare, but should also be the guardians of the public health. Although, at all times, recognizing the rights and liberties of the people it is our duty to enforce the laws of sanitation and to protect the people from their own ignorance and from the dangers of designing quacks and unscrupulous pretenders.

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## SANITARY INVESTIGATIONS OF OYSTER PRODUCTION AND DISTRIBUTION, AND THE SIGNIFICANCE OF THE RESULTS OBTAINED.\*

By HERBERT D. PEASE, M.D.,  
MANHATTAN, NEW YORK.

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ONE of the problems which should have been solved a decade ago, but which is forcing itself to the front by rapid strides, relates to the sanitary condition of shell-fish beds, and especially of oysters.

It would not be proper to say that but little work had been done on the matter prior to a decade ago, for this would not be true, but in proportion to what has been done, there remains a vast amount to do before we can ever arrive at the dividing line between what really ought to be done to

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\* Read before the Suffolk County Medical Society.



protect lives and what might be done to improve conditions from the esthetic standpoint.

In fact this is the problem in all public health work. How far need we go at the present time to protect lives and maintain health without too great sacrifice of energy and means. How far do well regulated and properly advanced conditions in other lines of sanitation require that we advance in the particular work which we have at hand. Straining at a gnat and swallowing a camel has been a favorite procedure from time immemorial, but that does not make such a gastronomic feat any the less advisable or even necessary for our modern development.

We should endeavor to make such progress in the preservation of the sanitary conditions of oyster production and distribution as will at one and the same time preserve and advance this industry, and also thoroughly protect the public from all reasonable danger of infection and disease while enjoying the fruits thereof.

To illustrate the situation by an example, we might say, that none of us wish, or would knowingly give putrid or infectious milk to infants, but on the other hand, the infant or at least the very large majority of them, would get no milk at all if we demanded that all milk sold be the certified product, and then insisted that even this should be pasteurized as was advocated by a prominent children's specialist in New York this week.

Shellfish must be protected from infectious material as far as possible, but if every oyster which showed the presence of a single *Colon bacillus* had to be excluded from the markets,

there would be but few oysters eaten except on the sly.

The recent action of the United States Department of Agriculture on this point is of interest, but without some knowledge of the basis of that action and without information as to the grounds upon which that Department intends to act, it cannot be said that the action taken is greatly illuminating.

"It is unlawful to ship or to sell in interstate commerce oysters or other shellfish taken from insanitary or polluted beds. The pollution of oysters with sewage can readily be detected by bacteriological examination, and such polluted oysters or other shellfish are adulterated under section 7 of the Food and Drug of June 30, 1906, in that they contain an added 'poisonous or other added deleterious ingredient which may render such article injurious to health.'"

Such articles are likewise adulterated under section 7, in the case of foods because they consist "in whole or in part of a filthy, decomposed or putrid animal or vegetable substance."

The question is not in most instances: are there any sewage bacteria present in the oyster's juice or in its intestines, *but how many are present and also how long have they been there?*

In the recent sanitary investigation of oyster production in New York State, conducted under my supervision, by the State Department of Health, samples from but two locations out of the hundreds examined failed to show the presence of bacteria of the *Bacillus Coli Communis* type in volumes of 1 c.c. of the oyster juice. While it must be admitted that a large number of beds could doubt-

less have been found in the equally good condition if we had hunted for them; it is also true that if we were to rule out of the market all oysters containing any of these organisms in 1 c.c. of their juice there would be practically no oyster industry worthy of the name left in this state.

It would be idle to claim that all such oysters are a serious menace to health. There is hardly a water supply in this State and but few milk supplies, which could successfully pass such a test.

*What* is the danger, how *great* is it, and how can its *presence* be *determined* and how can it be obviated, are the problems before us.

While there are a number of water borne diseases there is but one which need concern us greatly in this problem, namely typhoid fever.

Long before the advent of the science of bacteriology, there were evidences to show that oysters grown or fattened in sewer polluted waters were responsible for cases of typhoid fever in those who had eaten these oysters uncooked.

The earliest outbreak of typhoid attributed to the eating of contaminated oysters was reported in 1816 but few other instances were placed on record until 1880. Since that date a considerable number of definite *outbreaks* have been more or less conclusively shown to have been due to the eating of oysters and shellfish taken from polluted waters. Moreover, in some places having a high incidence of typhoid fever, investigators have attributed a considerable proportion of the sporadic cases of this disease, and in fact some have assigned actual *endemic* typhoid conditions to the eating of shellfish taken from polluted waters.

Concerning the evidence connecting some of the outbreaks of typhoid fever with the eating of oysters obtained from polluted waters, there can be no serious question. That oysters obtained from or which have been "plumped" in, sewage polluted waters have caused outbreaks of typhoid fever is a fact which cannot be gainsayed.

The well-known American outbreaks of typhoid fever attributed to oysters have occurred at Middletown, Conn., on two occasions, and at Atlantic City.

The first Middletown outbreak occurred in the fall of 1894, and was responsible for commanding definite attention in this country to the transmission of typhoid fever by oysters from polluted waters.

The conditions and circumstances under which the outbreak occurred were exceptionally well adapted to prove the possibility and the probability of such transmission following certain lines of oyster industry.

The facts described by Conn were substantially as follows:

Oysters taken from Long Island Sound were deposited for a few days, at least, in the tidal waters of Quinnipiac River at Fair Haven, Conn., about 300 feet above the outlet of a private sewer carrying sewage from a house in which there existed two cases of typhoid fever.

Some of these oysters were eaten raw at three separate fraternity banquets at Wesleyan University and served cooked at another fraternity banquet, all of which were held the same evening. Twenty-five per cent. of those attending the three banquets where the raw oysters were served contracted typhoid fever. There were twenty-nine such cases. None of



those attending the other banquets were affected. There were likewise found two cases among those who had eaten oysters from the same lot in other places in Middletown.

Some of the oysters from the same location at Fair Haven were sent to an Amherst College fraternity dinner, held on the same evening *and six cases of typhoid fever among those attending, followed.*

No other cases occurred in either of these places which could not be satisfactorily accounted for.

The period of incubation and the onset and course of the disease in these cases indicated most definitely a common origin, and there was found no other possible common source but the Fair Haven oysters.

This is a most typical example of the infection of oysters through "plumping" or "drinking" them in water polluted with typhoid discharges. The practise of "drinking" oysters at Fair Haven was not new at the time, the sewer responsible for the infection and other private sewers in the neighborhood had poured sewage into the river for years. The Quinnipiac is likewise polluted by sewage from other sources, but so far as is known the oysters plumped in its waters had not been responsible for a prior outbreak of typhoid fever. However, it would not be proper to say definitely that oysters plumped in these waters had not been the cause of cases of typhoid fever. Nevertheless, the advent of the two cases to one of the houses sewerage into the river near the oyster floats, brought about a pollution described by Houston as the most dangerous kind, as it was "specific" in character and of "recent sort," although comparatively small in amount.

The second Middletown-Wesleyan outbreak occurred in the fall of 1905, and again raw oysters consumed at two fraternity banquets were responsible. The train of circumstances was hardly less definite and conclusive than those surrounding the first outbreak.

During the summer of 1902 at Atlantic City, N. J., an unusual number of cases of typhoid fever were noted by the medical profession of that place.

A thorough study of the situation showed that there was no common source for the infection other than oysters and clams. The oysters were found to have been floated in waters at the mouth of the Penrose canal and its vicinity, and this canal was ascertained to have been carrying an unusual amount of sewage, owing to a break in the large sewer pipe running in the canal and which conducts under ordinary conditions a considerable portion of Atlantic City's sewage to the "Thoroughfare." That the oysters floated and the clams taken from these polluted waters were responsible for a large proportion of the unusual number of cases at Atlantic City, there was no doubt. This conclusion was approved by several well-known bacteriologists who investigated the situation.

In England, in recent years, two extensive outbreaks of typhoid fever, directly attributed to oysters, occurred at Winchester and Southampton from the eating of raw oysters taken from lots floated in the proven polluted waters at Emsworth. Here, again, we have to deal with two banquets given on the same day in two separate municipalities, with no possible common source of infection other than the oysters which were

eaten raw. None of the guests contracted the disease except those who had eaten some of the oysters. Approximately, the same percentage of guests contracted the disease and at corresponding intervals. It was likewise found, as in the Middletown cases, that oysters from the same lot brought about infection with the disease among those eating them in other places. It is most important to note that the oysters had been temporarily deposited in the polluted waters and had not reached maturity at this spot.

In the matter of the causations of sporadic cases and of endemic typhoid conditions by the eating of shellfish, the British Commission on Sewage Disposal obtained the opinions of a large number of well-known English bacteriologists and epidemiologists on the subject. The majority of these investigators attributed anywhere from 10 to 25 per cent. of the typhoid cases in their districts to polluted oysters, nevertheless the Commission reached the following conclusions.

"After carefully considering the whole of the evidence on this point we are satisfied that a considerable number of cases of enteric fever and other illness are caused by the consumption of shell-fish which have been exposed to sewage contamination; but, in the present state of knowledge we do not think it possible to make an accurate numerical statement.

"Moreover, an examination of the figures which have been placed before us as regards those towns in which the subject has been most carefully studied shows that there may be occasional errors. Indeed, the witnesses themselves recognized that absolutely accurate figures are not obtainable.

"We are far from denying that isolated cases may have been due to contaminated shell-fish, but when we remember the numerous unexplained cases of enteric fever we feel that the possibility of some of them being due to other causes cannot be altogether excluded."

In this country, opinion on this subject has not become sufficiently

crystalized to bring out many reports of investigations.

The most important is, perhaps, that made by Mr. George A. Soper regarding typhoid conditions at Lawrence, L. I., in 1904. In this study, the investigator found twenty-one out of thirty-one cases of typhoid fever in which the only probable source of infection were oysters and clams taken from floats immersed in polluted waters or from oyster beds subject to pollution. In the majority of cases at least, the oysters were from the floats.

That the waters in which these floats were located were badly polluted was amply demonstrated by the chemical and bacteriological examinations made at a time when conditions were known to be far better than when the cases of the disease developed.

Samples of oysters were likewise examined bacteriologically, and of them, twenty-five per cent. were shown to contain bacteria of the bacillus coli communis type in one-tenth of a cubic centimeter of the shell water and in sixty per cent. in one cubic centimeter of the same.

The sanitary survey showed the discharge of imperfectly treated sewage, from a population of 16,000 less than half a mile from the oyster floats. In fact, some were very much nearer. Aside from this pollution, there were many individual sewers, manure piles, dump heaps, piles of cess-pool sludge, which contributed to the pollution of the water adjacent to the floats.

From a study of the outbreaks of typhoid fever proven and suspected of being caused by polluted oysters, and of endemic conditions and sporadic cases of this disease caused and sus-



pected of being caused by the consumption of infected shellfish which have been already described it is apparent that in almost all the instances quoted in the former group, and to a large extent those in the latter, were due to almost *direct* carriage of materials of a demonstrated or readily assumed *specific infectious* typhoid or other disease producing nature, to the shellfish.

The fact that the great danger of the transmission of typhoid fever and other diseases by means of shellfish lies in the *character* of the materials polluting the beds, drinking places, etc., and in the directness with which such pollution reaches the shellfish, has been well expressed by Houston in the fourth report of the British Royal Sewage Disposal Commission, Volume I, page 36, where he is quoted as saying as follows:

"A pollution trivial in amount, but specific in character, is much more dangerous than a contamination gross in amount but non-specific in nature.

"It is also probable that a pollution trivial in amount, but specific in character *and of recent sort*, is more dangerous than a pollution gross in amount, specific in character, but of remote kind."

If then the important factors in the role which shellfish play in the transmission of diseases are the character of the materials polluting them and the directness of the pollution, it is manifest that to be in a position to definitely pass upon the disease-producing value of a given growth or lot of shellfish, we must be in a position to determine with accuracy not only the presence or absence of specific disease-producing pollution and also the directness with which such materials will gain access to the shellfish, but also we must be able to express in a quantitative degree the possibility of such specific pollution and

the directness of its carriage to the shellfish. Unfortunately neither our systematic supervision of infectious diseases, nor our methods of sanitary inspection of sewage and waste disposal systems, nor our technical methods of determining, as a routine procedure, the presence or absence of pollution in water or shellfish, permit us to make definite estimates of the possibility of specific typhoid pollution of shellfish.

Typhoid fever is not by any means confined to the larger centers of population with sewerage systems emptying into tidal or other waters. Indeed, the reverse is true. It has been shown by Fulton, Egbert and others quite conclusively that the disease is relatively more prevalent in rural communities. Here individual systems of sewage disposal are in vogue. The greatest danger to a water supply, and by inference to oyster beds, is not therefore, of necessity, due to the presence of sewage from a large community. Many of the outbreaks of this disease due to polluted *water*, have been caused by the improper disposal of the discharges of but one or two cases. This is likewise the case, but to a lesser extent, in the epidemics due to polluted *shellfish* which have already been described.

However, even a knowledge of the number of cases of typhoid fever among a population using a particular sewerage system, permits only an approximate estimation of the actual infectious character of the sewage in that system at its outlet. It is well recognized that some individuals not sick with this disease, harbor and distribute the germs of it in their discharges. Therefore, for this and other reasons the estimation of the amount of sewage leaving a system of

disposal, is not in reality an accurate index of the "disease value" or "possibilities" of that sewage.

Moreover, the laboratory investigations of water sewage and shellfish furnished but little better evidence as to the specific character of a pollution, for the reason that there has never been devised a practical method for the routine determination of the presence or absence of a specific disease-producing germ in such materials. All that is now undertaken in such investigations, is the determination of the amount of organic matter capable of being used as a bacterial food in the water or sewage, as measured by the number of bacteria present, and the presence or absence and the quantitative estimation of the common sewage bacteria, chiefly and usually only those of the *bacillus coli communis* type. In other words, the laboratory measures the degree of sewage pollution but not its specific disease-producing character. We have, however, certain indirect evidence on the subject.

It may be said that so far as available evidence goes, the typhoid bacillus does not multiply in either fresh or sea water under natural conditions.

Whipple has concluded from a study of the literature, that the duration of life of the typhoid bacillus in salt water is not unlike that in the fresh. It is generally conceded that the life of the typhoid bacillus in fresh waters of various types is not of long duration, depending upon the action of sunlight, absence of oxygen, antagonism of other bacteria and other physical agencies.

Savage has shown that its life in tidal mud, under various conditions, is greater than in water from the same location, but that, at least, the

vast majority of them perish in two to three weeks.

Klein, Field and others have found that typhoid bacilli in living oysters in the sea water under certain conditions, do not have an indefinite existence but die in considerable numbers, and cannot, in general, be found after a few weeks.

It is, of course, understood that in all such experimental work, the difficulties of isolating typhoid bacilli from fluids containing other bacteria, make it possible for some, at least, of the typhoid organisms to have remained alive and to have escaped detection. It can be said also that the bacteria of the type of the *bacillus coli communis*, the most common form of bacteria found in human discharges, has not only as long a duration of life under most natural conditions as the typhoid bacillus, but that as a general rule it resists the destructive forces of such agencies for a longer period.

For these and other reasons, it must be admitted that the relative numbers of *bacillus coli* and other sewage bacteria present in water, milk and other articles of food and drink, give us indices of a comparative and relative character of the fecal pollution of those articles. While this statement is not likely to be seriously controverted, it must not be forgotten, as we have already indicated, that the degree of pollution as measured by the relative presence of *bacillus coli* or coli-like organisms as determined by present methods, is not of necessity an index of the disease-producing power of the polluted article.

From what has been said, it can be properly inferred that the sanitary inspections and the laboratory investi-



gations can give a better idea as to the directness of general sewage pollution than of its specific character, but here again such determinations only have significance as indicative of probabilities and not as certainties in so far as the production of disease is concerned.

It is evident, therefore, that no attempt should be made to pass judgment of condemnation or approval upon shellfish beds and their contents, from the basis of the existence or freedom from disease-producing conditions in them, for we have no method of definitely determining such conditions.

We are forced, therefore to rely for such action as may be advisable, upon the basis of the estimation of the amount and distribution of the sewage pollution of a general character in relation to shellfish beds and their contents, and to oyster drinking places.

Justice to the oyster industry on the one hand, and to the public health on the other, demands that action on this basis shall not be taken except after the most careful and exhaustive investigations of an epidemiological, sanitary, engineering and biological character.

#### WORK OF STATE DEPARTMENT OF HEALTH.

The general survey comprised visits to the oyster beds and consultations with representative oyster growers and health officers in the vicinity of Raritan, Jamaica, East Chester, Great South, Huntington and Oyster Bays, in the District comprising the Peconic, Shelter Island and Gardiners Bays.

Much general and considerable detailed information regarding the

oyster and clam industries was obtained, and lead to decisions as to the course of the investigations finally followed.

It appeared from the knowledge obtained during this general survey, that oysters in Raritan and Jamaica Bays finished spawning earlier than those in other sections of the state. In consequence, these oysters were found to arrive at a marketable condition in advance of others. It was, therefore believed that it would be easier to obtain samples of oysters in a proper physical condition from these locations earlier in the season than from other sections. Moreover, the size and importance of the industry at these two points, and the apparent proximity of these locations to the large centers of population, led to the decision to make an extensive investigations in these two sections as the facilities and time at our disposal warranted.

It was likewise decided to undertake the examination of samples of water and oysters to be taken from other locations, selecting as far as possible such as would be most likely to show the more serious pollutions and those which might reasonably be suspected of freedom from pollution.

The collection of samples was commenced the latter part of July and continued until October 1st.

A total number of samples of all kinds examined was 332. Of these, 128 were of water and 204 were of samples of oysters. In all 926 oysters were subjected to bacteriological examination.

While the results of the field and the laboratory work were found to be in close harmony, the studies can only be considered as preliminary, and as such the Department was not

warranted in passing final judgment on the results for the purpose of administrative action. This does not carry with it, however, the necessity for refraining from the tabulation of the results on the basis of the relative conditions as found.

Certain workers in bacteriology have undertaken to classify the results of the examination of oysters by groups, and have referred to the results placed in certain groups as being subject to degrees of pollution.

For the purposes of comparison of our results by different standards, the following table has been prepared.

While the information at our disposal and the state of our knowledge may not permit the drawing of distinctions for administrative purposes between different degrees of pollution and the fixation of a definite danger to public health upon any given pollution, there can be no question regarding the desirability of remedying any conditions which may be in any degree whatever, a menace to the health of either the citizens of the locality or indirectly of those at distant points. Efforts toward this end should be pushed to the utmost limits of the statutory provisions.

In addition to the power granted under Section 210 of the Forest, Fish and Game Law, whereby criminal action can be taken by the Commissioner of Forest, Fish and Game against any one allowing sewage to pollute any oyster bed or beds, the State Department of Health has jurisdiction, under the Law of 1903, over any additional pollution of the public waters which did not exist at the time the law was passed.

The State Department of Health has been as active in this work as the Law of 1903 and the funds at its dis-

posal permitted. It can only act in such matters by moral suasion and through educational measures, unless the local authorities call upon it for help or submit plans for the approval of waste or sewage disposal systems.

I wish to lay emphasis on the fact that the real responsibility for any serious damage to the oyster industry is to a large extent the fault of the local authorities and their constituents. If the people want the oyster industry preserved they must be willing to install sewerage systems for villages and cities and proper methods of disposal of discharges and wastes for isolated private dwellings and public buildings.

In these efforts the medical profession can be of vast assistance especially in the creation of proper public sentiment for modern methods of treating our waste products.

Those portions of New York State which are located in the neighborhood of the oyster beds are made up of a soil almost ideal in character for highly efficient and inexpensive sewage disposal systems.

The question merely is, are the people of our New York coast line willing to pay for the installation of such systems in order to save the oyster and shellfish industry. The loss of the latter is certain if they do not take action and indeed prompt action towards the completion of well rounded systems of municipal and private sanitation.

The oyster producers can greatly assist in this campaign and in fact should be the promoters of it. In place of endeavoring to cover up defective conditions or seeking favorable official action which could be used to offset newspaper criticism



TABULATION OF RESULTS OF LABORATORY INVESTIGATIONS OF OYSTERS  
ACCORDING TO THE ASSUMED STANDARDS OF VARIOUS INVESTIGATORS.

| Source of Oysters.                         | Massachu-<br>setts, *1. | Fuller, *2,<br>R. I. | Houston, *3. |          |
|--------------------------------------------|-------------------------|----------------------|--------------|----------|
|                                            |                         |                      | Stringent.   | Lenient. |
| No. 1.                                     |                         |                      |              |          |
| Rodmans Neck .....                         | +                       | +                    | +            | —        |
| City Island .....                          | +                       | +                    | +            | —        |
| Davids Island .....                        | +                       | +                    | +            | —        |
| E. Chester Bay (water only).....           | +                       | +                    | +            | —        |
| Island Bridge .....                        |                         |                      | —            | —        |
| No. 2.                                     |                         |                      |              |          |
| Manhasset Bay .....                        | +                       | +                    |              |          |
| No. 3.                                     |                         |                      |              |          |
| Hempstead Harbor .....                     | +                       | +                    |              |          |
| No. 4.                                     |                         |                      |              |          |
| Long Island Sound .....                    | —                       | —                    |              |          |
| Oyster Bay .....                           | +                       | +                    | —?           |          |
| Cold Spring Harbor .....                   | +                       | +                    |              |          |
| No. 5.                                     |                         |                      |              |          |
| Huntington Harbor .....                    | +                       | +                    | +            |          |
| Northport Bay .....                        | +                       | +                    |              |          |
| Huntington Bay .....                       | +                       | +                    | +            | —        |
| No. 6.                                     |                         |                      |              |          |
| Nissequogue .....                          | +                       | +                    |              |          |
| No. 7.                                     |                         |                      |              |          |
| Port Jefferson Harbor .....                | —                       | +                    |              |          |
| No. 9.                                     |                         |                      |              |          |
| Greenport Harbor .....                     | +                       | +                    | +            |          |
| Mattituck .....                            | +                       | +                    |              |          |
| Sag Harbor .....                           | +                       | +                    | —?           |          |
| No. 11.                                    |                         |                      |              |          |
| Howell Point .....                         | —                       | +                    |              |          |
| Patchogue .....                            | +                       | +                    | +            | +        |
| Blue Point (one sampling point).....       | —                       | —                    |              |          |
| Green Point .....                          | —                       | +                    |              |          |
| Nichols Point .....                        | —                       | +                    |              |          |
| Islip .....                                | —                       | +                    |              |          |
| No. 12.                                    |                         |                      |              |          |
| Freeport .....                             | +                       | +                    | +            |          |
| Milburn .....                              | +                       | +                    | —?           |          |
| East Rockaway .....                        | +                       | +                    |              |          |
| No. 13.                                    |                         |                      |              |          |
| Old Mill Pond .....                        |                         |                      | —            |          |
| Flat Lands Bay .....                       | +                       | +                    | —?           |          |
| Big Channel .....                          | +                       | +                    | +            | +        |
| Beds near Rockaway and Trestle.....        | +                       | +                    | +            | +        |
| Ruffle Bar .....                           | +                       | +                    | —            | —        |
| Big Fishkill Channel .....                 | +                       | +                    | +            | +        |
| Pumpkin Patch Channel .....                | +                       | +                    | +            | —        |
| Goosekill Creek .....                      | +                       | +                    | —            | —        |
| Raunt .....                                | +                       | +                    | —            | —        |
| Big Channel (old Swale Marsh).....         | +                       | +                    | +            | —        |
| Island Channel .....                       | +                       | +                    | —            | —        |
| No. 14.                                    |                         |                      |              |          |
| Raritan Bay (Great Kills and vicinity).... | +                       | +                    | +            | —?       |
| Southwest of Great Kills.....              | +                       | +                    | +            | —        |

\* 1. Massachusetts. Assumed Massachusetts State Board of Health Standard for condemnation = *Bac. coli* type present in 1 c.c. volumes of shell water of 50 per cent. of samples examined.

\* 2. Fuller. Assumed standard of C. A. Fuller, Rhode Island Investigation = *Bac. coli* present or absent in 1 c.c. volumes of tidal water or oyster shell water as indicative of the presence or absence of sewage pollution.

\* 3. Houston. Presumptive Stringent and Lenient Standards of Houston. It should be stated that Houston's technic and methods of expression of results as indicated in the table quoted from his work are not those used by us, and it would not be possible to interpret our results in the terms used by him with absolute accuracy. He examined the entire contents of the oyster shells, while we examined only the shell water. Broadly speaking, however, we may reasonably assume that his stringent standard would be about equivalent to the finding of *Bac. coli* in 1 c.c. of shell water and his lenient standard to the same finding in .01 c.c. of the same.

\* 1. Massachusetts. Thirty-seventh Annual Report State Board of Health, 1905, pp. 16: 411-26, 427-458.

\* 3. Houston. Journal of Hygiene, 1904, Vol. IV, 182.

they should at once clean house and eliminate all unsanitary conditions and practices in connection with the collecting, opening and shipping aspects of their work.

The human discharges and refuse from collecting boats should not be dumped into waters over oyster beds for typhoid carriers are as likely to exist among oyster men as among milk producers.

The oyster houses on the shores should have efficient methods of disposal of the discharges and refuse from their employees and those in the vicinity.

Drinking beds for oysters should be selected for the purity of the water rather than their convenience. Oysters should not be transported in sunken open frame scows through polluted waters.

Finally the oyster growers should make determined efforts to solve by scientific investigation the problem of eliminating sewage bacteria from oysters by means of transplantation from polluted to unpolluted waters. This proposition is largely economic in character. It is altogether probable that waters receiving large volume of sewage at points more or less remote from oyster beds are eminently suitable for the rapid growth of young oysters. It almost definitely appeared from our investigation that the greater the volume of pollution and the longer the organic material, well mixed with sea water, could remain upon the oyster layings, the greater

the rate of growth of the oysters and the fewer the failures of the crops.

It may be found, therefore, on more careful study that the soluable organic matter of sewage can be put to valuable use in oyster culture, but those applying it for this purpose should be in a position to assure the users of their products that the possible dangers of such methods have been entirely eliminated.

The certified oyster will undoubtedly come. The producer who places oysters before the public backed by a certificate based upon thorough scientific inspections and control will reap a harvest. At the same time he will indirectly promote the whole oyster industry on account of the force of his example and the educational influence resulting from his conduct of a great industry in accordance with scientific principles.

Mr. George C. Whipple, one of the pioneer investigators of the oyster problems became so enthusiastic over the certified oyster that he was moved to express his exuberant feeling in the following verse:

#### THE CERTIFIED OYSTER.

A certified oyster am I,

I've neither bacillus nor flea;

No bug doth abide in my flabby inside,

I'm as sterile as sterile can be.

I've neither a pimple or spot,

I've neither a corn or a spavin;

I never will rot like a vile floated sot.

Oh! I am an oyster worth havin'.



# THE WASSERMANN REACTION FOR SYPHILIS.\*

By JOHN I. WISEMAN, M.D.,

Kings Park State Hospital.

WITHIN the past few years much investigation has been carried on and much written, both abroad and in this country, concerning a test for syphilis, now spoken of as the Wassermann reaction. The value of such a test to the general practitioner and specialist alike can scarcely be overestimated, if it be simple to perform, accurate and reliable in its results.

The purpose of this paper is first to give the fundamental facts from which the reaction developed, the reagents necessary, and technique required to perform the test; and second to describe briefly the modified Wassermann reaction as modified by Dr. Noguchi of the Rockefeller Institute for Medical Research.

The test as devised by Wassermann in 1906, is based upon certain phenomena described by Bordet and Gengou in 1901. Bordet and Gengou found that if they injected into the circulation of an animal of one species (for instance a rabbit) the red blood corpuscles taken from an animal of another species (as a sheep) they could produce in the serum of the former a substance which would destroy the corpuscles of the latter. This was found to be equally true for a variety of animal and vegetable cells, especially the bacteria. The substances produced in the blood serum are spoken of as the immune bodies or anti-bodies, while the substances used to produce the anti-bodies (*i. e.*, the substances injected) are spoken of as antigens.

The action of antigens and the production of anti-bodies can, perhaps, best be explained by a diagrammatic drawing representing Ehrlich's conception of immunity.

A cell is represented as having variously shaped receptors for combining with different kinds of substances. Antigen is attracted to the cell and becomes fast to a certain type of receptor (Fig. 1), and being a poison it tends to destroy the cell; if, however, the cell is not destroyed it will be stimulated to form new receptors in large numbers which become free in the circulation (Fig. 2). These are the immune or anti-bodies. While free in the serum they still retain their power to attract antigen and combine with it to form a neutral substance which is finally destroyed. It was found that when a serum containing anti-bodies against red blood corpuscles is heated to 56 degrees C. for half an hour it loses its power to destroy or hemolyse the corpuscles. Serum thus treated is said to be inactivated. If a small quantity of fresh serum is taken from an animal in which anti-bodies do not exist and added to the heated serum then its power to cause hemolysis will be restored. This process is called reactivating the serum. But normal fresh serum alone will have no effect on corpuscles. This experiment proves that the destruction of an antigen by specific anti-bodies depends upon the combined action of two substances: one is produced by the injection of corpuscles or other antigens and is called *amboceptor*;

\* Read before the Suffolk County Medical Society, April 28, 1910.

the other is present in all fresh normal serum and is called *complement*.

Bordet and Gengou found further that if they added a culture of bacteria to a serum containing free complement and which was immunized to that particular species of bacteria, that a reaction would occur and complement would become fixed or neutralized.

with syphilis acts as antigen and produces anti-syphilitic amboceptor. To Wassermann is due the credit of first bringing together in a test tube a serum containing syphilitic amboceptor, antigen and complement, allowing them to combine at body temperature for half an hour and then testing for the absence or presence

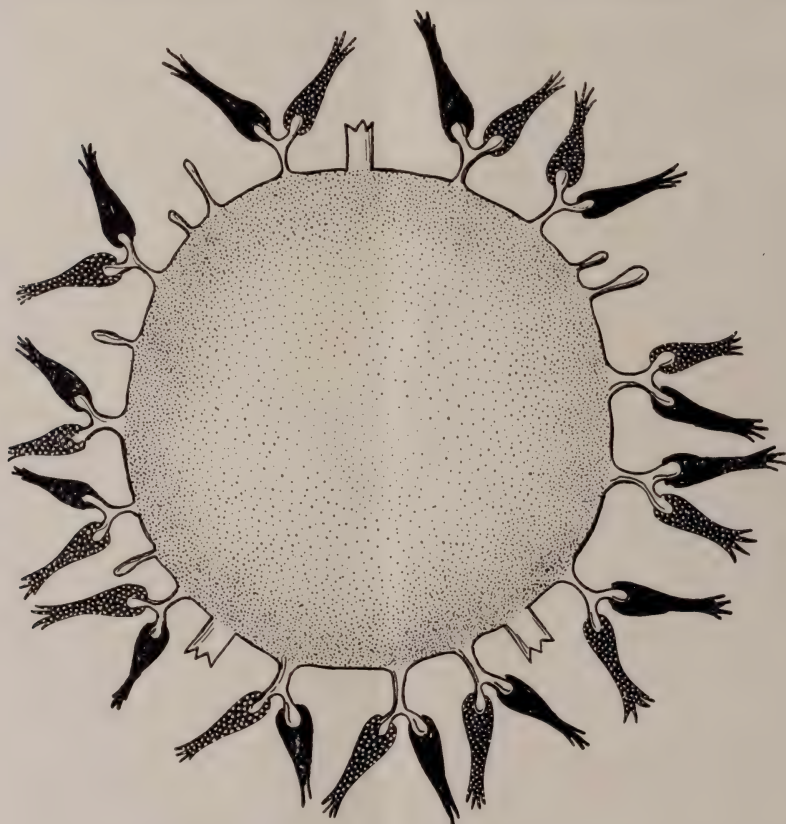


FIG. 1.—Diagrammatic drawing, slightly modified from Adami's system of pathology, showing cell receptors combined with antigen and complement. Drawn by Miss M. M. Macy.

lized. The serum then would be inactivated just as happened when the serum was heated to 56 degrees C.

Let us now see how these facts can be utilized in a test for syphilis.

As the injection of sheep corpuscles into the circulation of a rabbit produces anti-sheep amboceptor so the presence of the *spirochæta pallida* in the circulation of a person infected

of complement. This latter process forms the second step of the test, and is carried out by adding sheep's corpuscles and anti-sheep amboceptor to the tube after the first reaction is complete. If in the first step of the reaction complement has been neutralized or fixed by the reaction between antigen and syphilitic amboceptor, the sheep's corpuscles will remain un-



altered. This constitutes a positive reaction for syphilis. While on the other hand if syphilitic amboceptor is not present in the suspected serum then no such reaction can take place between antigen, amboceptor and complement and in the second step of the reaction complement will be free

is collected from the lobe of the ear in a glass tube. After clotting one drop of the serum is placed in a test tube and one drop is placed in tube No. 2, which is to serve as a control. Complement is obtained by diluting the serum of a guinea pig with one and a half times its volume of normal salt

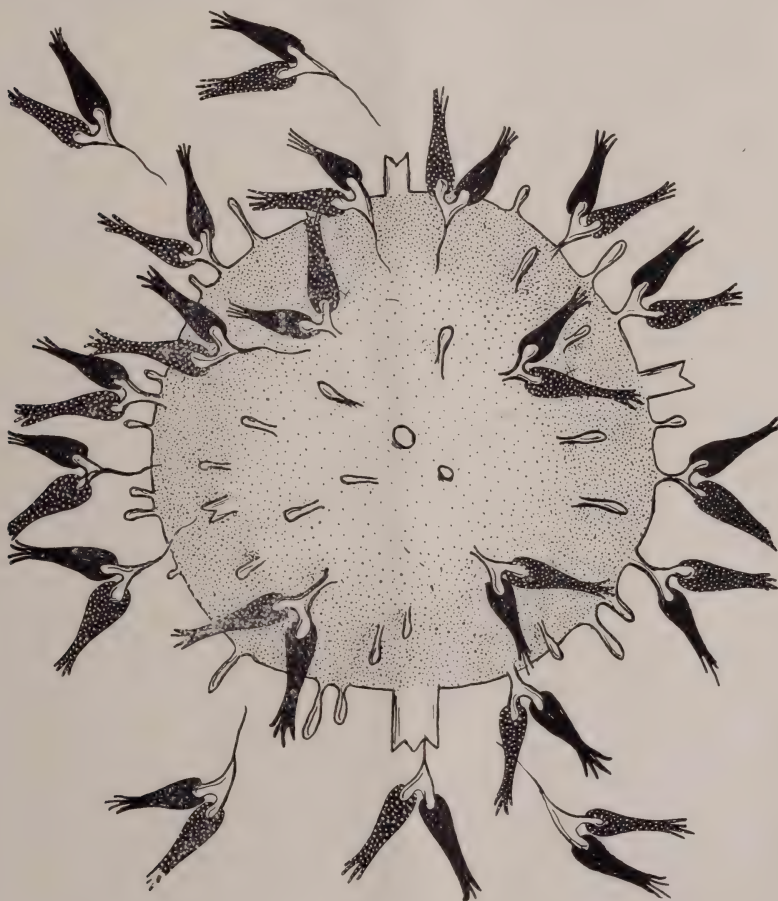


FIG. 2.—From Adami's system of pathology, slightly modified, showing formation of new receptors and free amboceptors in the circulation. Drawn by Miss M. M. Macy.

to combine with sheep's corpuscles and anti-sheep amboceptor and cause hemolysis of the corpuscles.

This constitutes a negative reaction.

The Wassermann reaction is divided into two steps, for the first are required patient's serum, complement and antigen. The patient's blood

solution. The guinea pig serum must be perfectly fresh (not older than 24 hours) and kept on ice after the serum has separated. 0.1 c.c. of this solution is added to the patient's serum in each test tube.

Antigen is an alcoholic extract made from normal liver, kidney or

heart tissue which, according to the excellent suggestion of Noguchi is dried on strips of filter paper and standardized so that a piece of known size is sufficient to combine with syphilitic anti-body and fix all the complement in the guinea pig serum. The mixture is then placed in a thermostat at body temperature for one hour; this completes the first step of the reaction. At the end of an hour 1 c.c. of a suspension of human red blood corpuscles in normal salt solution in the proportion of one drop of blood to 4 c.c. of salt solution is added to each tube. Amboceptor against human red blood cells is also added. This is prepared from the serum of a rabbit that has been immunized to

human red blood corpuscles, and here again Noguchi has dried this serum on strips of paper and standardized it so that a piece of definite length will completely hemolyze 1 c.c. of the blood suspension within two hours. At the end of two hours the control tube will have hemolyzed while the first tube may be opaque or clear. If opaque it means that complement was entirely fixed in the first step of the reaction between antigen and syphilitic amboceptor which means a positive reaction.

If clear or hemolyzed it means syphilitic anti-body is not present in the suspected serum, or a negative result.

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## A PLEA FOR THE PREVENTION OF ADENOIDS.\*

By JOHN E. SHEPPARD, M.D.

BROOKLYN, NEW YORK.

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I WISH first of all to lay emphasis upon the fact that this is not a paper about such a hackneyed subject as adenoids—if it were, I should expect a hurried rush from the room. Rather it is my desire to urge the medical profession to consider carefully if something cannot be done to provide for the children of this and future generations such conditions for living that they—at any rate, not “all of them”—will not have adenoids. For that is the way the question so often is put to us now-a-days by the laity: “Why do all the children have adenoids?” “It was not formerly so, was it?” I am sure you all have had to make some sort of answer to these two questions many, many times during the past decade.

Therefore I will take it for granted, without argument, that the time is ripe for such a *plea* as that suggested by the title of my paper; *but*—do I hear you ask—on what sort of a preventable causative factor do I propose to build up my plea for adenoid prevention?

It is not my purpose to go over with you in any detail the various causes of adenoids that have been advanced by the multitudinous writers on the subject; suffice it for me merely to mention the following: youth, heredity, climate (damp and cold), syphilitic or tubercular dyscrasias, struma, scrofula and the lymphatic diathesis, the exanthematous fevers, whooping-cough, anemia, frequent coryzas, repeated colds, nasal catarrh, repeated inflammations of the faucial and pharyngeal mucosa, anterior nasal

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\* Read before the Medical Society of the County of Kings, Brooklyn, N. Y., June 21, 1910.



stenosis, hypertrophic rhinitis, deviations of the septum, spurs, etc., living much of the time in overcrowded school-rooms or in small or badly ventilated rooms, continuous exposure to unfavorable hygienic surroundings, city life as contrasted with country life, dust-laden atmosphere, irritating vapors, digestive disturbances, in the rich, faulty nutrition due to pampered feeding, in the poor, malnutrition, uricacidemia, intestinal irregularities, obstruction, constipation, or irritation produced by intestinal worms, excess of grape sugar, etc., etc. Possibly any, or all, of these may be contributing etiological factors, although in my judgment many, perhaps most, of them are the results rather than the causes of adenoids.

It has become, however, my very positive belief, strengthened as the years go on, that the one great overwhelming cause of adenoids is the *quality* of the air that we give our children to breathe, and I base this belief upon the two following facts: *first*, upon the anatomical fact, if you may call it such, that the newborn begins its extra-uterine life with something like thirty inspirations per minute, day in and day out, and that the air inspired each time not only passes over the naso-pharyngeal mucosa, but impinges upon it in its deflection from the more or less horizontal air current in the nose to the more or less vertical air current of the pharynx, larynx and bronchial tubes; and *secondly*, upon the fact that the quality of the air inspired by both rich and poor is more or less bad—bad in many respects—in our large cities, bad in the houses and bad out of them; in the country, bad at least indoors.

Much of this badness is perhaps not preventible, and must be endured. For instance, I fear I can make no practical suggestions for bettering the quality of the street dust (and do you ever stop to think of what this consists?) which so persistently flies into our faces, and which for lack of better we must breathe; nor do I know how we can prevent the escape into our houses of more or less inappreciable quantities of coal, sewer, and illuminating gasses—too slight, perhaps, to cause any great amount of irritation. *But*, there is one respect in which our indoor air, both city and country, can and should be bettered, and that is as regards its *humidity*, and this is the crux of my paper, of my plea. And I believe certain things concerning it: *first*, that this lack of indoor humidity is probably the greatest cause of adenoids; *second*, that this lack of indoor humidity can be remedied in some perfectly practical way; and *third*, that it is the duty of the medical profession for themselves, their families, their patients, the public, and most of all for the children, to demand from those who build and heat our homes, our schoolhouses, our hospitals, our offices, our places of amusement, our churches, etc., that they discover and introduce at the earliest possible moment the most practical and the best remedy for this evil. If we but create the demand, those whose business it is, will of necessity, find the remedy; and that is my object in coming here this evening, to ask that you each and everyone will do your little part in this crusade, and none of us can foretell how soon tangible results may be achieved.

For the presentation to the medical profession of this subject of "Indoor

Humidity," and its far-reaching possibilities, I wish to give all possible credit to our fellow member, Dr. Henry Mitchell Smith, who read before the Brooklyn Medical Society, May 15, 1903, what should in my judgment have proved to be, and what may yet, if we take hold and do our share, prove to have been an epoch-making contribution.\*

I had hoped very much that Dr. Smith could be with us this evening because he is much better equipped than I to tell you something about what would be a practical remedy for the trouble, but to my regret I learned only this morning that he was being held to a previous engagement. In consequence of this fact, it would seem to devolve upon me briefly to present to you certain of the essential facts contained in Dr. Smith's article, although I would ask every one of you to read the complete article at your earliest opportunity.

He says, in part:

"It is a fundamental principle in climatology that the relative humidity of any location is of the greatest importance, and yet in regulating the 'climate' of our homes in winter this factor is entirely overlooked. It is startling to hear that the average heated room is as dry as a desert, and that this dryness forces us to heat to a most unhygienic degree, that it causes a waste of fuel and that diseases of the air passages are traceable to this source. \* \* \*

"The effect of different conditions of humidity is best shown by determining what the aqueous vapor lacks of saturation, for this measures not only its capacity but its demand for moisture. There is a factor for this called the 'saturation deficit,' which many meteorologists have proposed to substitute for the relative humidity in the psychrometric tables. \* \* \*

"Let us compare in grains per cubic foot the saturation deficit of the average winter conditions with that of the artificially heated room. The mean relative humidity of New York city for the months of October to April, inclusive, is approximately 73 per cent., as has been seen. The mean average temperature for the same months

is 44 degrees. The tables give the following values from the absolute humidity in grains, from which we obtain the saturation deficit as follows:

#### AVERAGE OUTDOOR CONDITIONS.

| Temperature. | Average Rel. Hum.  | Average ab. Hum.         |
|--------------|--------------------|--------------------------|
| 44°          | 73%                | 2.404 (grs. per cu. ft.) |
| 44°          | 100% (Saturation). | 3.294 ( " " " )          |

Saturation Deficit = 3.294 - 2.404 = 0.896 (grs. per cu. ft.)

#### AVERAGE INDOOR CONDITIONS.

| Temperature. | Average Rel. Hum.  | Average ab. Hum.        |
|--------------|--------------------|-------------------------|
| 72°          | 80%                | 2.552 (gr. per cu. ft.) |
| 72°          | 100% (Saturation). | 8.508 ( " " " )         |

Saturation Deficit = 8.508 - 2.552 = 5.956 (grs. per cu. ft.)

"This shows that each cubic foot of aqueous vapor out of doors is 0.890 grains short of saturation, while each cubic foot of aqueous vapor indoors is 5.965 grains short of saturation."

"The skin and the mucous membranes of the respiratory passages are the principal sufferers, since these tissues are always kept moist with their own secretions and from them water is freely abstracted to satisfy this large saturation deficit, such air passing with every inspiration over the moistening surfaces nature has provided in the mucous membranes calling for an enormous output of the fluid elements of these tissues. This leads to glandular over-activity and its consequent evils, the elaboration of which subject the scope of this paper does not permit."

"The overheating of our houses has been accepted as a prominent cause of 'catarrh,' but I am confident that the low relative humidity and consequently the large saturation deficit of the aqueous vapor in the atmosphere of our rooms in winter is much more important than is the overheating in itself, and it may be doubted whether the so-called damp climate of the sea coast or the shores of large inland lakes is in itself so responsible for the above diseases, as has been generally supposed. It seems much more likely that the great contrast between the indoor and the outdoor relative humidity in those regions is the real factor." \* \* \*

"It is needless to say how unhygienic as well as uncomfortable is such a distortion of the proper relationship between temperature and relative humidity. By regulating the indoor relative humidity we could keep our room temperature much more nearly stationary, irrespective of the temperature outside. But no improvement in indoor atmospheric conditions can be expected until heating engineers and the people they serve realize that with the ever-

\* "Indoor Humidity." By Henry Mitchell Smith, M.D. *Heating and Ventilating Journal*, August and September, 1903.



varying absolute humidity out of doors no system of heating can be made satisfactory if the indoor relative humidity is disregarded." \* \* \*

"Various instruments may be used to determine the relative humidity, the wet and dry bulb thermometers being perhaps the most accurate; but for household purposes this form of hygrometer has the disadvantage that the relative humidity is not indicated directly, but reference to tables or else a somewhat complicated calculation is required. It has one point of considerable scientific interest, however, for the reading of the wet bulb thermometer is a very fair measure of the temperature that is felt by the moist surface of the body; that is to say, the temperature produced by evaporation (which is always lower than the air temperature, unless the aqueous vapor is saturated). In an interesting paper on this subject Prof. Harrington, of the Weather Bureau, has termed the temperature produced by evaporation 'sensible temperature,' because it is the temperature actually felt by the surface of the body." \* \* \*

"A careful study of the fluctuations in the wet bulb thermometer, having in mind this term, 'sensible temperature,' shows that sensations of heat and cold conform much more closely to the readings of the wet bulb than of the dry bulb, as the following instance will illustrate. On a very hot day in May, 1903, at 4.45 P. M., the dry bulb (air temperature) stood at 87 degrees, and the wet bulb (sensible temperature) at 70 degrees. The relative humidity indicated by these readings was 45 per cent. (unusually low for this locality). At 5 P. M. there appeared indications of an approaching thunder storm, which, however, passed around to the north and only a few drops of rain fell; at 5.15 P. M. the impression was that it had become very much warmer, but the thermometer showed 86 degrees dry bulb, and 73 degrees wet bulb (relative humidity 53 per cent.). The air temperature was actually 1 degree lower, but the sensible temperature was 3 degrees higher, which exactly coincides with one's sensations. \* \* \* The surface of the body is analogous to a wet bulb thermometer and the term 'sensible temperature' deserves a prominent place in our nomenclature."

"The lowering of the 'sensible temperature' by a low relative humidity is of especial importance in children's nurseries—a fact that has not been sufficiently recognized. Children and babies habitually uncover themselves in bed, thus exposing their bodies to the chill produced by excessive evaporation from the skin. This would seem to account for many of the colds and bronchial affections that children and infants contract in rooms where the temperature has been kept sufficiently high. If a proper relative humidity were maintained, uncovering the body would be attended

with less risk. It is easier to 'take cold' in a room at 72 degrees, with a relative humidity of 30 per cent., than in a room at 65 degrees, with a relative humidity of 60 per cent."

"A reliable hygrometer should be in every household and should be watched to see that proper conditions are maintained. An instrument for registering the percentage of moisture is as important as an instrument for registering the temperature; perhaps more so, for with a proper percentage of saturation of the aqueous vapor, we may more safely trust to our feelings of comfort regarding the temperature."

"For practical purposes the hair hygrometer, or Lambrecht's polymeter, is a most satisfactory instrument, combining as it does a thermometer and a dial from which the percentage of relative humidity can be easily read." \* \* \*

"The importance of indoor humidity from a hygienic and therapeutic standpoint can hardly be overestimated and a paper could be written upon this phase of the subject alone. Generally speaking, dry air is an excitant often causing sleeplessness and irritability, accompanied with a drier skin and quickened pulse. Moist air is more of a depressant, producing quiet sleep and slower circulation of the blood." \* \* \*

"Moistening apparatus have been in the main unsatisfactory because their control has not been independent of the control of the heat source in the room; but instances frequently occur, owing to rapid atmospheric fluctuations, which make it necessary to shut off the production of moisture, but at the same time to have full heat in the system. On the other hand, we may wish to shut off the heat, but not the production of vapor. It is absolutely necessary for practical use to have the heating and the moistening apparatus capable of being independently controlled."

"It is amusing to find that in spite of the advantages of a moister atmosphere indoors objections have been raised against the use of devices for this purpose on the ground that when the weather is very cold moisture condenses upon window panes. It is true that this will happen; it is a natural and logical result of proper conditions. We can all remember that before the days of heating by direct radiation it was usual to see frost on the window panes in winter, a condition we now never see with the extreme dryness that our present direct heating systems produce. The fact that condensation does not occur is sufficient evidence of the indoor 'dryness.' However, this objection could be obviated by having double windows, which indeed are common in houses whose situation is at all exposed." \* \* \*

"When we consider how many are compelled by their occupations to spend a greater part of their lives indoors, the desirability of reducing as far as possible the contrasts between natural and artificial conditions is at once apparent. The rela-

tive dryness of the average indoor atmosphere in winter is so unnatural and so unhygienic that its correction should receive the serious consideration that the subject merits."

"We who live in houses heated in the ordinary manner are responsible for the conditions that prevail, because we have not demanded more hygienic methods. If the subject does not appeal to us upon the

ground of health it should upon the ground of economy and comfort. If we would preserve our furniture, books, pictures, etc., from the ravages of artificial heat we must contrive some means of controlling this low relative humidity. After living in rooms with a lower temperature and proper relative humidity, no one will be satisfied with the other conditions."

130 Montague Street.

## EPIGASTRIC INCISIONS IN DEALING WITH CANCER OF THE BREAST.\*

By LEWIS STEPHEN PILCHER, M.D., LL.D.,  
BROOKLYN, NEW YORK.

MR. HANDLEY, of the Middlesex Hospital, London, in his book on "Cancer of the Breast and its Operative Treatment," published in 1906, has a chapter devoted to the subject of epigastric invasion, in which he shows that transepigastric infection of the abdomen frequently precedes invasion of the thorax, and that in twelve per cent. of all cases epigastric infection occurs alone. He is inclined to conclude that the occurrence or non-occurrence of epigastric infection depends not only on the point of origin of the primary growth in the breast, but to some extent on the variation of the freedom of communication between the hepatic and parietal lymphatics in the epigastric angle.

As regards the manner in which the extension of the disease through the epigastrium into the peritoneal cavity occurs, his observation leads him to attach great importance to the method of growth along the lymphatic vessels by a process of permeation rather than of embolism. Mr. Handley calls attention to the anatomical fact that the lower or inner margin of the breast is distant only about one

inch from the intervals between the ensiform and the seventh cartilage, hence, as soon as the permeation of the parietes has extended a little more than an inch beyond the edge of the breast, the cancer infected lymphatics of the deep fascia are separated from the subperitoneal fat by a single layer of fibrous tissue, traversed by lymphatics. At the tip of the ensiform cartilage the transverse fascia is hardly recognizable as a distinct layer and the parietal plexus is separated from the subperitoneal fat simply by the linea alba. It is obvious that this is a weak spot through which cancer may readily reach the peritoneum.

The studies of Mr. Handley lead him to the conclusion that this important process of lymphatic permeation goes on primarily in the network of lymphatic vessels which run along the surface of the deep fascia, from which layer it may extend at points either to the surface, forming skin nodules, or to the deep layers at the epigastrium from which it extends through this space to the abdominal viscera, and particularly to the liver.

The practical conclusion from this is the importance of the removal

\* Read before the Brooklyn Surgical Society. June 2, 1910.



of the deep subcutaneous fat and fascia for a wide area about the primary cancerous focus, since in their substance lie imbedded the possibly permeated lymphatic vessels. It is in the wide removal of this fat fascia layer, rather than of the skin itself, that the greatest degree of security against recurrence is to be found. In the methods of operation for cancer of the breast, which have become now generally accepted, which involve not only the generous removal of the overlying skin, but also the underlying muscles, with their fascial envelope, and the free cleaning out of the contents of the axilla, these technical requirements are well met, so far as the thorax and axilla are concerned. My own impression is that surgeons generally have not given as much attention to the possibilities of the downward and inward extension toward the epigastrium as a more full appreciation of all the conditions of breast cancer would require. This is well brought out by the observations of Mr. Handley, who advises that the incisions usually made should be extended downward and toward the median line to the epigastric region, and that the anterior layer of the sheath of the rectus muscle in its upper third on both sides of the middle line should be raised up and with its overlying deep layer of fat should be removed as part of the mass that is taken away with the breast itself.

I can recall from my own experience a number of cases which illustrate, clinically at least, the possibilities of metastasis from breast cancer to the liver, which, until these illuminating observations of Mr. Handley, had been a mystery to me. As far back as 1878, I operated upon a lady of 58 years of age for carcinoma

of the breast, by the method then accepted as proper, which did not involve the clearing out of the axilla nor removal of the pectoral muscles. Three years later, I had to remove a mass of infected glands from the axilla of this lady. No local recurrence, nor intrathoracic symptoms followed, but three years later, being seven years after the primary operation, she died with symptoms of carcinoma of the liver.

Again, in 1891, I operated upon a lady 50 years of age, removing the breast and overlying skin freely, and clearing out the axilla, without removing the pectoral muscles nor opening the supraclavicular region. Eighteen months later, I had to operate again on account of recurrence in the scar, and now removed the pectoralis major muscle. This lady remained well for five years thereafter, at the end of which time she again presented herself, with a growth in the other breast, situated in its lower outer quadrant. This breast also was then removed, with the pectoralis major muscles and contents of the axilla. No local recurrence followed, but at the end of three and a half years after this last operation, she died from what was diagnosed as carcinoma of the liver.

In 1898, I operated upon a lady 48 years of age, who had an advanced carcinoma of the breast. I did an extensive operation, removing much skin, both pectoral muscles, cleaning out the axilla and the supraclavicular space. No local recurrence manifested itself, but she died two years later from intra-abdominal trouble diagnosed as carcinoma of the liver.

In October, 1902, I operated upon a lady 56 years of age, removing a right breast, overlying skin, contents

of the axilla, both pectoral muscles, and cleaning out the supraclavicular space. She remained well for one year when a pea-sized nodule near the upper end of the thorax wound was discovered and excised. She remained well for one year longer, at the end of which time, no external evidence of recurrence being discernible she began to develop jaundice. An exploratory incision was made which revealed a diffuse carcinoma of the liver. She recovered from the operation, but died in a few months from the progressive disease of the liver.

In August, 1907, Dr. Paul Pilcher operated upon a lady 38 years of age, with an advanced carcinoma of the right breast. A wide excision of the breast and overlying skin, contents of the axilla and of the supraclavicular space was done. In the skin near and to the right of the umbilicus, at least six inches from the cancer of the breast, a small, cancerous nodule was at the same time detected and removed. The patient made an uncomplicated recovery from the operation. She remained well for over two years when a mass in the epigastrium began to be appreciated. This rapidly extended, evidently being seated in the liver, and terminated in death within a few months.

Since my attention was called to the researches of Mr. Handley, with reference to the invasion of the epigastrium from the breast, I have practiced in operating for cancer of the breast systematically an epigastric incision so planned as to expose and remove in one piece with the mass above, the tongue of deeper fat and of fascia extending down into that region. In some cases I have combined this with the supraclavicular

opening as well, making a truly extensive and apparently formidable operation extending from just above the umbilicus below, over the side of the thorax to the shoulder and upward into the neck as far as the larynx. All of the cases thus far operated upon have done well up to the present time, but as they have all been done within the past year it is entirely too early to report upon the ultimate results.

As an example, however, I may record the case of a woman 64 years of age, upon whom I operated April 2, 1910, for a diffuse cancerous induration involving the upper half of the left breast. The space above the clavicle was fully cleaned out from the subclaviojugular angle to the shoulder. A number of small, hard nodes were found in this space. Then a full excision of the contents of the axilla, with a removal of the breast, overlying skin, and both pectoral muscles, together with the fascia covering the upper part of the rectus abdominis muscle was made. The extensive wound was covered in by plastic skin flaps. The operation was borne without the development of any condition to cause anxiety. Primary union throughout its whole extent was secured.

The line of attack which I follow in these cases is to open and clear out the space above the clavicle first, then to outline, by knife, the whole extent of the skin incision from shoulder to epigastrium surrounding the breast; to then reflect the lower flap of skin and superficial fascia, beginning at the axillary border and ending in the epigastrium; then the upper flap at its epigastric end is turned up sufficiently to expose the



tongue of tissue which is to be excised from the lower part; then the incision is carried down to the abdominal muscles through the overlying fascia and subjacent fat so as to circumscribe the desired tongue of tissue, and this layer is dissected up from the muscle underneath until the region of the breast is reached. The further procedures for the removal of the breast, pectoral muscles and axillary contents are conducted according to the already established usage. To secure flaps to cover in the raw surface exposed, I do not hesitate to freely divide the skin in whatever direction the particular case may seem to require so as to give me flaps that

may be moved over to meet their fellows from the opposite side. I place regularly three drains; one into the axilla, one into the anterior outer portion of the pectoral wound, and one into the subcutaneous epigastric region. When the supraclavicular space is opened I placed a drain in the outer angle of that wound piercing the anterior edge of the trapezius muscle. This whole combination of operative proceedings seems to be called for by our knowledge of the manner in which a breast cancer is disseminated, and I find it to be practical and believe it to be worthy of the consideration, at least, of all surgeons dealing with such conditions.

## LONG ISLAND MEDICAL JOURNAL

A Forum for the Discussion of all Topics Involving the Medical Profession and especially that of Long Island.

EDITOR-IN-CHIEF

PAUL MONROE PILCHER, A.M., M.D.

ASSOCIATE EDITOR

JAMES MCFARLANE WINFIELD, M.D.

EDITORIAL OFFICE:

145 GATES AVENUE, BROOKLYN, N. Y.

Further Information on advertising page 3

SEPTEMBER, 1910.

### THE SUFFOLK COUNTY MEDICAL SOCIETY.

THE Suffolk County Medical Society was organized in the year 1806, in accordance with an Act which required that the physicians of every county should organize themselves into a medical society for the purpose of examining and licensing practitioners of medicine. Of the founders of the Society little is known, but the names of Dr. David Conklin, who practised in Riverhead, Dr. Oliver Brown, Dr. Blatchley of Huntington, Dr. John Gardiner and Richard Udall are associated with the earlier years of its existence. Unfortunately the old minutes of the society were lost, but occasional evidence is found showing the continued activity of the county society. An interesting exhibit was presented by Dr. Frank Overton, of Patchogue, in his historical sketch of the society, which appears in Volume I, of the LONG ISLAND MEDICAL JOURNAL, and is as follows:

"The Medical Society of the County of Suffolk, in the State of New York.

*"To All Whom These Presents shall come, Greeting:*

"Know Ye, That, in conformity with the Statute, entitled: 'An Act to incorporate medical societies, for

the purpose of regulating the Practice of Physics and Surgery within this state,'

"Passed 4th April, 1806.

"Satisfactory evidence hath been produced to us, that Nathaniel Miller, of Easthampton, has duly studied physic and surgery for the time prescribed by law. . . . and that he hath been carefully and impartially examined by our Censors, touching his knowledge in the Healing Art. And the said Nathaniel Miller having given us sufficient proofs of his proficiency in Medical and Surgical Science . . . . We do, in pursuance of the power invested in us, grant unto Nathaniel Miller our license to practice Physics and Surgery in this State.

"In Witness Whereof, we have caused these Letters Testimonial to be made public. . . . To which we have caused the seal of our Society to be affixed, and testified by our President and Secretary, this twenty-first day of July, Anno Domini, 1807.

"DAVID CONKLIN, President.

"MOSES BLATCHLEY, Secretary."

When the Associated Physicians of Long Island was formed in 1898 a new impetus was given to the county society, and so highly did the physicians of Suffolk County value the two societies that in 1906, so far as was known, only three or four physicians had failed to join the county society, and every member of the county society had become connected with the Associated Physicians of Long Island. The close association of these two societies has created a cordial feeling among all the practitioners of the county, and has raised the standard of practice throughout that entire section of the Island. The character of the papers presented and the discussions at their regular meetings are fully up to the standard set by the larger societies in New York and Brooklyn.



## SANITARY INVESTIGATION OF THE OYSTER.

FOR a number of years past, the attention of medical men has been directed toward the oyster as a carrier of typhoid infection. This was more especially brought to the attention of the public by an epidemic of typhoid fever which occurred at the Wesleyan University at Middletown, Connecticut, in the fall of 1905. Following a number of fraternity banquets, all of which were held the same evening, twenty-five per cent. of those attending three banquets, where raw oysters were served, developed typhoid fever. There were twenty-nine such cases. Some oysters coming from the same locality were sent to Amherst College, where they were served at a fraternity dinner held on the same evening, and six cases of typhoid fever developed among those attending this banquet. It was found that the oysters were taken from Long Island Sound, and were deposited, for a few days at least, in the tidal waters of Quinnipiac River, at Fair Haven, Connecticut, about three hundred feet above the outlet of a private sewer from a house where two cases of typhoid existed. All of the oysters eaten at these banquets were traced to this source.

When the facts concerning this epidemic became known to the public all oysters became objects of suspicion, and the oyster industry suffered considerably. It was partially on this account that the State Department of Health took up the subject and conducted a thorough investigation. Basing his opinions upon these investigations, which he supervised, Doctor H. D. Pease has presented the

subject in the form of an essay, which appears in another part of this JOURNAL. Some rather interesting facts were elicited, and it was found among other things that almost all oysters contained some of the *bacillus coli communis* type of bacteria. In making the tests, one c.c. of oyster juice was taken, and in only two locations out of hundreds examined, were bacteria of this type found to be absent.

The questions considered by Dr. Pease are as follows:

What is the danger from eating oysters, and how great is it?

Is there any means of determining this danger by laboratory tests?

If danger is found to be present, can we obviate it?

The discussion of these points as brought out by the writer are well worthy of close attention. He shows that the real responsibility for any serious danger to the oyster industry is to a large extent the fault of local authorities and their constituents. He points out that if the people interested in the oyster industry wish to protect their rights they must see that proper sewerage systems are installed in all villages and cities in the neighborhood of oyster beds. Also that certain regulations in regard to the disposal of all excrementa in the neighborhood of the oyster beds should be observed; that all human discharges and refuse from collecting boats should not be dumped into waters over the oyster beds; that oyster houses should provide proper means for the disposal of the discharges and the refuse of their employees; that drinking beds for oysters should be selected for the purity of the water; that oysters should not be conveyed in sunken,

open-framed scows through polluted waters; that oysters should be transplanted from polluted to unpolluted waters. In conclusion, he promises us that much to be desired delicacy, "THE CERTIFIED OYSTER."

The impression left upon the reader is that the oyster industry is not necessarily in danger of injury, but that certain localities will almost surely suffer unless the local health departments make satisfactory provision for the protection of the oyster beds.

### CHARLES JEWETT.

DOCTOR CHARLES JEWETT, President of the Medical Society of the State of New York, and ex-President of the Medical Society of the County of Kings, and member of the Associated Physicians of Long Island, died at his home, 330 Clinton Avenue, shortly after one o'clock on the morning of August 6, 1910. He had been active during the summer, operating regularly at the Long Island College Hospital, where he was professor of gynecology and obstetrics. He suffered from an apoplectic stroke, which overcame him Thursday morning. He was found in the morning in a semi-conscious condition in his bed. He never rallied from the first attack, and died within twenty-four hours.

Doctor Jewett was born in Bath, Maine, September 27, 1839, and was therefore nearly seventy-one years of age at the time of his death. He was graduated at Bowdoin College in 1864, and received the degree of M.A. from the same college in 1867. The same year he took up his residence in Brooklyn, and entered the College of Physicians and Surgeons of Columbia University, where he graduated in

1871. He began his practice in Brooklyn. In the early years of his practice it was necessary for him to supplement his work by teaching, which he did at the Adelphi Academy in the mornings, and in the afternoons took up his work as a medical practitioner. His interest in literary work and scientific research quickly earned for him a prominent position among his colleagues. In 1880 he was appointed professor of obstetrics and diseases of children in Long Island College Hospital. Later he became professor of gynecology at the same institution. He still held these positions at the time of his death. He gave freely of his time to charitable institutions. He was gynecologist at the Long Island College Hospital, consulting obstetrician of the Kings County Hospital, consulting gynecologist of the Bushwick, Swedish and German hospitals of Brooklyn, and consulting surgeon of St. Christopher's Hospital. All through his professional career he was actively associated with the county medical society, and later with the state medical society, as well as with many smaller special societies of which he was a member. He was a prolific writer, and his works on obstetrics gave him a wide reputation. His most important work was his "*Practice of Obstetrics*." He also was the author of "*Essentials of Obstetrics*," and of "*A Manual on Childbed Nursing*."

During the past few years Doctor Jewett interested himself in legislative matters pertaining to the practice of medicine in New York State, and was considered an authority in that department. What we believe to be the last production of his pen is an editorial written by him on legislative matters,



which will appear in the October issue of the JOURNAL. It was received by us on the day of his death.

His death will deprive both the city

and state of a man whose aim has been to uplift the practice of medicine and to denounce charlatanism wherever it came to his notice.

## **Associated Physicians of Long Island Announcement of the October Meeting**

The October Meeting of the Associated Physicians of Long Island will be held in the New Opera House at Oyster Bay, on Saturday, October 15th.

The meeting will be called at three o'clock in the afternoon, when Mr. Theodore Roosevelt will deliver an address of welcome.

It is expected that a prominent feature of the Scientific Session will be a moving picture exhibition of the habits and disease-carrying methods of the house fly. The exhibition is said to be quite remarkable. The completed program for the scientific part of the meeting will be announced later. The dinner, or because of the number of the members and their guests in attendance, a buffet supper, will be given in the New Inn at six o'clock, and the special train will leave Oyster Bay on the return trip at eight thirty. A regular train to the city leaves Oyster Bay later in the evening.

As a large attendance is expected it is especially requested that prompt replies be sent to the card of inquiry regarding attendance at the meeting, the dinner and the special train which will be issued early in October. Detailed information about the various features and functions of the occasion, as well as the special train time table, will be published at the same time.

THOMAS R. FRENCH, M.D. President.

JAMES COLE HANCOCK, M.D., Secretary.

# TRANSACTIONS

## OF THE

# BROOKLYN SURGICAL SOCIETY.

March, 1910.

### LOCAL TUBERCULOSIS OF ILEO-CECAL REGION.

DR. J. SHERMAN WIGHT reported the following case:

D. C., age 30 years, United States, electrician. Admitted to the Long Island College Hospital, June 21, 1909.

*Family History.*—Father alive and well; mother dead, cause unknown; two sisters and one brother alive and well; one sister suffered with lung trouble and valvular disease of the heart for four years.

*Previous Personal History.*—At eight years of age he had general peritonitis. At ten years of age had chills and fever; this has continued on and off to the present time. At twenty-one years of age he had typhoid fever and was sick nine months.

September, 1908, he was admitted to the Long Island College Hospital and was under treatment for a short time. He then had pain and tenderness in the ileocecal region; the appendix, however, appeared to have escaped. He left the hospital improved. He continued to suffer from belching, eructations and flatus with distension of the abdomen, and was unable to take solid food. He consulted Dr. Fuhs. A tuberculin eye test was tried and obtained a positive reaction. He sent him to the hospital for surgical treatment. Patient was fairly well nourished, heart, lungs and kidneys normal. Blood examination showed a slight reduction of the

hemoglobin and a slight increase of leucocytes. Examination of the feces for tubercle bacilli was negative. Liver was normal, spleen slightly enlarged, abdomen slightly distended, pain and tenderness severe in the right ileocecal region; temperature between 99 and 101 degrees; pulse 100.

Patient was prepared for operation. An incision was made in the right iliac region; the colon, together with the ileum were brought out of the wound; intestine was pale in areas, veins were large and injected, appendix was small and normal. A large ulcer was found along the free edge of the ileum, about two inches from the ileocecal valve. There were other areas of thickening in both ileum and cecum left to mark the site of old ulcers. About three inches of the ileum and some of the cecum were excised; the free ends of the gut brought together with a Murphy button. The abdomen was closed. Patient made an uninterrupted recovery. The button was expelled July 9th. He left the hospital July 24th greatly improved.

I have seen him since then from time to time, he has gained in weight, and while he has recovered from the local distress on the right side, he is still unable to take solid food without pain and flatus.

### EXCISION OF THE ELBOW JOINT.

DR. J. SHERMAN WIGHT reported the following case:



G. L., male, age 16 years, United States, printer. Admitted to the Long Island College Hospital, June 30, 1909.

*Family History.*—Father and mother alive and well. No brothers or sisters.

Previous personal history, negative.

While riding on a train had left arm crushed at the elbow. Examination showed the whole left arm swollen and lacerated, upper end of the forearm bones and lower end of the humerus comminuted and compounded, a fracture of the humerus at the middle third. Wet dressings were applied and the arm retained in splints. Pieces of bone were removed from the elbow; temperature ranged from 100 to 101 degrees; pulse remained at about 105.

July 26th he left the hospital with bony union of the fragments of the humerus and ankylosis of the elbow. An X-ray picture was taken which showed the presence of a sequestrum at the elbow. There was a sinus at the outer side of the elbow which remained open although the swelling of the arm disappeared, until November 10, 1909, when he returned to the hospital for excision of the elbow joint. At this time he had some paralyses of both ulnar and musculo-spiral nerves.

I excised the elbow joint through an incision running parallel to the long axis, and along the back of the left arm for about seven inches. About two inches of bone at the elbow joint was removed. The ulnar nerve was bound down in a bed of new bone formation. The wound was packed and the arm placed on a right angle splint. He left the hospital November 22d, with his arm still in a splint, a small sinus in the center of the

wound. At the end of the month the splint was removed, the sinus was healed and an elastic elbow support applied. The arm was massaged and treated with electricity and has continued to develop since that time, until now he has a useful joint.

*Discussion by Dr. Alexander Rae.*—The functions of the intestines have not fully been resorted. Probably what was removed was a severe local disturbance which took in a considerable portion of the intestinal tract, functionally making itself evident by the disturbance in the digestive tract. This explains the failure of the function to be fully restored, that is, the function had not been good for many months.

In regard to the second case, I think the doctor should be congratulated on the functional results. In the few I have done, we did not obtain as good function. Ankylosis resulted in some cases. Would this patient be better off with a fixed elbow joint? In one case of my own, a tubercular elbow which was excised and in which fixation was secured, the patient, a young lady school teacher, has a most useful arm.

*Discussion by Dr. Norman P. Geis.*—Dr. Geis thought, in the lower joint, the patient has a useful joint. The only motions he lacks at the elbow are pronation and supination and he can pronate and supinate with the shoulder. He can write. It is better to have a useful movable joint than a joint at a right angle all the time.

*Discussion by Dr. J. Sherman Wight.*—In regard to the use of an ankylosed elbow compared with one having motion obtained in this way by excision, Dr. Wight thought there is not any choice between the two.

Of the cases he has seen, half had carrying capacity almost equal to the other arm and the addition to the motion at that joint has enabled them to attend to dressing themselves and to reach about the head. The doctor thought there was no difficulty in choosing between the two, in fact, an arm which is ankylosed at a convenient angle, should be excised if promising to give such a result as this arm has.

#### MULTIPLE FIBROIDS.

DR. F. W. WUNDERLICH reported the following case:

Mrs. Th. H. M., a native of the United States, has been suffering for years with severe pains in the pelvis and back. The pains were more severe at the beginning of the menstrual period; toward the end they became gradually less severe. At times the loss of blood was profuse, and debilitated her very much. She was admitted to the Skene Sanitarium September 29, 1909.

September 30th, hysteromyomectomy was done. The stump of the cervix was left. The main arteries were ligated with catgut. The edges of the broad ligaments and cervix were united with continuous catgut sutures, and drawn together as close as possible. The line of incision was closed by suturing the different layers with continuous catgut sutures, and the skin with interrupted silkworm-gut sutures.

While the silkworm-gut sutures were being inserted, a suspicious oozing was noticed in the upper angle of the wound, from a vessel in the subcutaneous tissue, and a suture was inserted at that point to check it. Apparently it was successful as the oozing ceased. The remaining sutures

were tied, the dressing applied and the patient returned to her room.

In the evening when the effect of the anesthesia had passed off, and the blood pressure increased, secondary hemorrhage occurred. The attendants attempted to check the hemorrhage by application of pressure. They did not succeed, and later in the night were obliged to call in Dr. Todd who was near by. He cut a suture at the lower angle of the wound and packed the wound with gauze.

It was unfortunate that I was not called early in the evening. I am convinced that the hemorrhage occurred in the upper part of the wound and on opening the wound there, a ligature could have been placed on the bleeding vessel, the blood coagula removed from the wound and healing by primary intention secured. The packing with gauze controlled the hemorrhage but the healing was protracted owing to the presence of blood coagula.

Suppuration did not take place but a small cavity at the lower end of the wound, with serous secretion, was a source of discomfort for several weeks. The patient recovered completely and is at present travelling.

#### RECURRENT CARCINOMA OF ABDOMEN.

DR. WUNDERLICH reported the following case:

Miss E. T., sixty-two years of age, native of Germany, was operated upon, February 1, 1909, for a large cyst of the left ovary and the right ovary was removed for cystic degeneration.

The recovery was somewhat retarded owing to phlebitis of a superficial vein in the right gluteal region.



Otherwise recovery was uneventful and complete.

During the summer months she lived in the country and enjoyed good health.

November 27, 1909, she complained that the cicatrix of the operation wound had become prominent and painful during the last few weeks. She had noticed a change in her general condition, loss of appetite and vigor in the latter part of September and the beginning of October. Later she noticed the change in the cicatrix.

On examination I found a mass which had the appearance of a malignant growth. It extended above and below the cicatrix and had developed on both sides of the cicatrix. The abdomen was distended at that time, but no tumor could be felt.

She was advised to go at once to St. Peter's Hospital in order to have the tumor removed. She entered the hospital.

November 30th, at the time of the operation, it was found that the entire thickness of the abdominal wall was involved. Apparently metastases were present in the omentum and the ascending colon. The operation wound was closed with interrupted through and through sutures of silkworm gut. Although there was considerable tension, the wound healed by first intention and remained firm to the end.

The patient had temporary relief. Subsequently tumors developed in connection with the omentum and colon, and increased rapidly in size. The patient suffered with pain, want of appetite, constipation, and sleeplessness. Narcotics were freely administered to relieve her suffering as much as possible. She gradually failed and died February 4, 1910.

Dr. Murray classifies the tumor as a carcinoma.

Eight years before the first operation, Dr. Wunderlich operated upon an older sister of the patient for very large ovarian cysts of both sides when she was sixty-two years of age. One of the cysts showed tendencies to degenerative changes, but the patient recovered and is in good health to-day.

#### SOME CONSIDERATION IN CASES OF DIFFUSE PERITONITIS.

ALEXANDER RAE, M.D.

Remarks offered on such a broad subject as diffuse peritonitis must of course, be limited to certain points which are of prime importance. The one lesson which experience has impressed upon me as of the utmost importance is that delay is the thing which often costs the patients their lives. Two cases illustrating the possibilities in the two extremes of the condition are as follows:

CASE I.—Mr. B., aged 26, was taken ill August 1st with violent colicky pains, vomiting and diarrhoea six hours after eating a shore dinner. Patient thought these the usual symptoms of indigestion after a shore dinner and did not send for his physician until August 3d, when his condition at 9 A. M. was as follows: Temperature, 101 degrees, pulse, 85, no vomiting or diarrhoea during the night. Abdomen slightly distended, everywhere tense, generally tender, but without localized pain. Dover's powder and hot stupes to abdomen were prescribed. Being obliged to go out of town in the afternoon, the patient was left in charge of an associate. The patient did call this physician, who prescribed two drachms of the deodorized tincture of opium with instructions to take ten drops and repeat after an interval if the pain was not relieved. The next morning the patient was comfortable, with no pain whatever, but with a distended and board-like abdomen. He had taken the entire two drachms of the tincture of opium. Temperature, 101 degrees, pulse, 84, respiration, 20. Any differential diagnosis was impossible. The treatment for five days was nothing but water by mouth, stupes, enemata, etc. Vomiting did not recur. Enemata brought away gas and small liquid movements, the temperature ranged

from 100½ to 102. At the end of a week the abdomen had returned to its normal condition. The patient remained in bed until the 15th. Was then up and about his room feeling quite recovered.

On the 21st he was seized with a violent pain in the region of appendix and examination showed a small tumor. Leucocytes, 17,000, polynuclears, 83 per cent. A diagnosis of appendicitis was made, which was concurred in by consultants at 5 P. M. and the appendix was removed by Dr. Rae at 7:30 P. M. The appendix was gangrenous and was post-cæcal, in a mass of adhesions. The patient made an uneventful recovery and was out of the hospital in four weeks and has been well since.

This illustrates one phase of the very important topic of diffuse peritonitis. The question is, did the patient have a diffuse peritonitis or a local peritonitis from the focus at the appendix? The patient had been in good health. His general resistance was good. The character of the infecting agent, *i. e.*, *communis coli*, was not the most virulent, and part of it after three days was shut off so that we had to deal only with the toxins which were absorbed. The character of the infection, the limited amount of it, the fact that it became localized and the irritation of the peritonitis subsiding, his good leucocytosis enabled him to recover. Probably if seen when first taken sick, it would have been possible to make a diagnosis of appendicitis and operation undertaken at once.

CASE II.—The other case was Mr. N., aged 62, taken ill on March 27, 1909. He was under the care of another physician until April 4th, under treatment for indigestion. Had a history of chronic gastritis for many years.

When the patient came under the care of Dr. Rae he was suffering much pain, nausea, temperature was 100 degrees, pulse, 90. The expression was anxious, the abdomen everywhere tender, but there was no one spot of great pain. Appreciating the serious condition further counsel was suggested and obtained in a few hours. Dr. Rae had advised removal to hospital and operation. The condition was critical; the patient grew rapidly weaker in these few hours

and it was felt that he could not survive an operation. Four hours later the patient died.

The patient had a lesion, a perforation, which was not recognized and his general condition precluded any possibility of relief.

We are not slow to give a man the only opportunity that he has for recovery from these conditions in diffuse peritonitis. The disease is certainly fatal if no operation is performed and an early operation is most favorable for the patient. While a great many other cases might be mentioned, these are two types, and the danger of any delay in operative interference, and the difficulty of making a correct diagnosis are to be emphasized. In the first case the result was fortunate, although the delay was the fault of the patient. The character and the amount of the infection counts for a great deal.

Much has been said about the absorbing power of the peritoneum, but still we must not forget that the very ability of the peritoneum for absorption is a great danger, as it is through that that the condition of the patient is aggravated, and when a general inflammation of the peritoneum occurs, absorption ceases and exudation is abundant.

*Discussion by Dr. James P. Warbasse.*—Dr. Warbasse said he would regard the first case as a case of ordinary appendicitis, which Dr. Rae would have operated on undoubtedly if he had had the opportunity of seeing the case immediately and had not been called away. The case would have recovered. Unfortunately this initial attack of appendicitis was treated by heroic doses of opium which so obtunded and immobilized the peritoneum and intestine that healing went on and the attack subsided: a fortuitous as well as fortunate out-



come. It would seem that Dr. Rae's associate was somewhat culpable in a way for this man receiving so much opium. The disease might have gone on and destroyed the man with symptoms masked. Dr. Warbasse thought it a mistake in these cases to exhibit opium in any form. Then the man developed a subsequent attack, which is not uncommon, and in that attack, Dr. Rae operated and the man recovered.

It is to be regretted that Dr. Rae did not operate immediately on his second case of obscure origin, for if this case, as seems, was a case of peritonitis, the only hope for the patient was the immediate recognition of the condition and immediate operative treatment.

*Discussion by Dr. J. D. Sullivan.*—I am inclined to think that the first case of peritonitis was a local peritonitis and the distension was due to the great amount of opium. It might have been a good thing to arrest the local inflammation but possibly that might have occurred without it. The point I wished to make was that I do not think he would have recovered so rapidly if he had had general peritonitis.

*Discussion by Dr. Alexander Rae.*—I think myself that the case really comes in the class that Deaver makes and he allows that delay may be practised. You must remember that when I first saw the case he had a fixed, rigid abdomen, not so broadlike as the day after, but still one in which it was a very grave question whether it would be wise to operate. Deaver says, in a large proportion of cases we can wait with confidence till conditions subside. Personally I prefer operative procedure if we can get it in time. I did not advise the exhibi-

tion of opium in this case. The one point I wished to bring up is that delay should be avoided in these cases.

#### APPENDECTOMY AND CHOLECYSTOTOMY.

Dr. C. H. TERRY reported the following case:

On December 15, 1908, W. A., aged 37, was admitted to St. Mary's Hospital with the following history:

About a year previous the patient began to have attacks of abdominal pain. The attacks came on at intervals of about a week at first and gradually increased in frequency and severity. The pain was located principally in the right hypochondriac region but radiated to the back and lower abdomen. These attacks were usually accompanied by vomiting and obstinate constipation. During the past six months, these attacks have come on much more frequently, sometimes the patient having as many as three in a day, and with increased severity.

On December 20, 1908, an incision was made on the right side, midway between the appendix and gall bladder regions. The appendix was found surrounded by adhesions. This was caught and double ligatured about the base, clamped and ligated. The stump was touched with the cautery. The incision was prolonged upwards to the gall bladder which was large and distended with bile. The right lobe of the liver was greatly enlarged. The gall bladder was incised and washed out with hydrogen peroxide. A rubber tube was sewed in for drainage and abdomen was closed with silkworm sutures. The pylorus was surrounded by a firm cartilaginous ring suggesting carcinoma and also a subsequent operation. The patient got along without any untoward

symptom until December 29th, when, after a comfortable, night, he was seized with vomiting and brought up thirty ounces of dark blood. His bowels moved several times, with blood in each evacuation. His temperature was 101 degrees and pulse 154. He was in a state of complete collapse. Fortunately my colleague, Dr. Parker, was in the hospital and gave him a hypodermic of morphia and atropia, astringents which checked the hemorrhage, injections of saline and whiskey. For some time after he remained very pale and exsanguinated. He slowly recovered and left the hospital February 3, 1909. The cause of the hemorrhage, whether from the diseased condition of the gall bladder or from a gastric ulcer, is uncertain. Dr. Terry saw the man about a week ago and did not recognize him as the former patient. He then seemed in fairly good health, weighed 140 pounds and was driving a milk wagon daily.

#### MUSCULO-SPIRAL PARALYSIS.

Dr. TERRY reported the following case:

November 9th, M. G., aged 13, was

admitted to St. Mary's Hospital, having fallen from the roof of a house only one story high and landed upon his shoulder and arm. Before he came to the hospital, he was attended by a physician and the case was diagnosed as dislocation of the elbow and fracture of the lower end of the radius. I was unable to discover a fracture or a dislocation (this latter, however, might have been reduced before I saw him). The arm was much swollen and discolored, and, as the hand dropped helplessly, the deformity resembled greatly the silver-fork symptom of Colles fracture. The arm was put in a splint but the boy complained bitterly of pain in the thumb. Although there was no constriction of the limb, the pain continued for about ten days and subsided when the swelling went down. He was sent home on November 23d, but returned to the hospital two weeks later complaining that he could not use the arm. It was then discovered that his drop wrist resulted from paralysis of the musculo-spiral nerve. He improved rapidly under the use of electricity and when last seen a month ago, was nearly well.



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CHARLES JEWETT

1839-1910

AN HISTORICAL OUTLINE OF HIS LIFE

By WILLIAM SCHROEDER, Sr., M.D.

CHARLES JEWETT, A.M., M.D., Sc.D., was born at Bath, Maine, September 27, 1839, and died in Brooklyn, N. Y., August 6, 1910. His father was George Jewett and his mother, Sarah Jewett, *nee* Hall, both of Maine.

Dr. Jewett was married in 1868 to Miss Abbie E. Flagg, of New Hampshire, who died in 1872. Two children were born of this union, Harold F. Jewett, M.D., and Alice Hall Jewett, wife of John Theodore Schwarte, who survive him.

He received his early education at the Bath High School, Maine, and Bowdoin College, graduating A.B., in 1864, receiving from the same college the degree of A.M., in 1867, and Sc.D., in 1894.

In 1867 he began the study of medicine under the direction of Hiram Lathrop, M.D., of Coopers-town, N. Y., attended lectures at the Long Island College Hospital in 1869, University Medical College in 1870, and the College of Physicians and Surgeons, New York, where he received the degree of M.D. in 1871.

He practiced the healing art in the city of Brooklyn during his entire professional life.

Dr. Jewett first began as a teacher, as Professor of Physical Science at the Adelphi Academy of Brooklyn, N. Y., the number of students under his instructions we do not know, but from 1880 to 1910 at the Long Island College Hospital 1,870 students have

graduated, all of these have received instruction from him, and all will carry with them to the end of life's journey pleasant memories of a noble character, one whom Nature had chosen to be a teacher and adviser to his fellow man.

Another link in the chain that binds us to the past has broken, a teacher, adviser and friend has ended his life work among us and we who remain, who have been benefited by his counsel may ever strive to do for suffering humanity, as was evident from the devotion he displayed through a long and eventful life.

## MEDICAL POSITIONS.

LONG ISLAND COLLEGE HOSPITAL.

1880-1882—Professor of Obstetrics.

1883-1898—Professor of Obstetrics and Diseases of Children.

1899-1910—Professor of Obstetrics and Gynecology.

## HOSPITALS AND DISPENSARIES.

Obstetrician and Gynecological Surgeon, Long Island College Hospital. Surgeon-in-Chief, Brooklyn Throat Hospital.

Surgeon, Bushwick and East Brooklyn Dispensary.

Physician, Brooklyn Orphan Asylum. Physician, Bedford Dispensary.

Consulting Obstetrician, Kings County Hospital.

Consulting Gynecologist, Bushwick Hospital.



CHARLES JEWETT



Consulting Gynecologist, Swedish Hospital.  
 Consulting Gynecologist, German Hospital.  
 Consulting Physician, St. Mary's Hospital.  
 Consulting Surgeon, St. Christopher Hospital.

## MEDICAL SOCIETIES.

1871-1910—The Medical Society, County of Kings. Censor 1876 and 1883-1888, Trustee 1888-1891 and 1894-1903, Vice-President 1877-1878-1879. President 1880-1881-1882.

1879-1884—Brooklyn Anatomical and Surgical Society.

1874-1910—Brooklyn Pathological Society.

1890-1910—Brooklyn Gynecological Society. President 1893-1894.

1892-1910—Brooklyn Medical Book Club.

1910—Brooklyn Medical Society.

1898-1910—Associated Physicians of Long Island. Medical Association of the Greater New York. New York Obstetrical Society, President 1894. New York Academy of Medicine.

1886-1910—New York State Medical Society, President 1910. New York Physicians Mutual Aid Association, Vice-President 1891-1893. American Gynecological Society, President 1900.

1879-1910—American Academy of Medicine. American Medical Association.

Honorary Member—British Gynecological Society.

Honorary Member—Detroit Gynecological Society.

Honorary President—Obstetrical Section, Pan-American Medical Congress.

Member and Founder—International Congress of Gynecology and Obstetrics.

Hamilton—University and Automobile Clubs.

Delta Kappa Epsilon Club.

Alumni Association of Bowdoin College.

1895-1910—President Board of Trustees Bushwick Hospital.

1887-1910—Trustee Brooklyn Eye and Ear Hospital.

1895-1910—Presented to the Profession, Jewett's Axis Traction Forceps.

Nov. 25, 1905—Jewett Training School for Nurses in connection with the Bushwick Hospital was organized and a testimonial dinner was given him by the staff of the Hospital.

Charles M. Pratt endowed a number of beds in the Long Island College Hospital in honor of Dr. Charles Jewett.

## MEDICAL BOOKS AND PAPERS.

1891—Manual of Child Bed Nursing, 12 mo., 40 pp., the fifth edition appeared in 1902 with 96 pages.

1894—Outlines of Obstetrics, 8 vo., 264 pp., the second edition appeared in 1897 under the name of Essentials of Obstetrics with 356 pages.

1898—System of Obstetrics, edited by Charles Jewett, A.M., M.D., Sc.D., 8 vo., 750 pp., second edition in 1903, third edition in 1907.

1900—Syllabus of Gynecology, 8 vo., 132 pp.

Contributed articles in the American Text Book of Obstetrics, Hamilton System of Legal Medicine, Keating Gynecology, and Foster's Handbook of Therapeutics.

1884—Associate Editor, American Medical Digest.

1888—Editor, Department of Progress in Obstetrics, Brooklyn Medical Journal.

1880—Associate Editor, Annals of the Anatomical and Surgical Society. Associate Editor, American Journal of Gynecology and Obstetrics. Associate Editor, "Janno" Published in Amsterdam.

1902—Editor, American Gynecology.

## PAPERS.

1877—A Case of Cesarean Section.

1878—Report on the Case of the late E. A. Graux, M.D.

1882—Notes on the Delivery of the Placenta.

1882—Notes of Labor in Deformed Pelvis.

1883—A Case of Galactocoele.

- 1885—Two Cases of Laparo Elytrotomy.  
 1890—Note on Episiotomy.  
 1891—Management of Labor in Eclampsia.  
 1892—Diagnosis of Pregnancy in the Early Months.  
 1892—The Application of the Electric Light Current.  
 1892—Two Successful Cases of Conservative Cesarean Section.  
 1893—The Clinical Limitation of Symphyseotomy.  
 1894—The Introduction of Symphyseotomy into America.  
 1894—Note on Posture in Labor.  
 1894—Obstetric Diagnosis by Abdominal Examination.  
 1895—Note on Axis Traction. New Axis Traction Forceps.  
 1895—The Milk Laboratory.  
 1895—Preventive Treatment of Puerperal Mastitis.  
 1896—The Question of Puerperal Self Infection.  
 1896—Three Recent Symphyseotomies.  
 1897—Note on the Treatment of Puerperal Eclampsia.  
 1897—Pelvic Surgery by Vaginal Section.  
 1897—A Monstrosity with Sacro-Coccygeal Cyst.  
 1897—The Medical Treatment of Puerperal Infection.  
 1899—Cesarean Section. Notes on the Techniques.  
 1899—Danger Signals of the Pre-Eclamptic State.  
 1900—Obstetric Surgery of Pelvic Contraction.  
 1902—Remarks on the Diagnosis of Pregnancy in the Early Months.  
 1903—Hysterectomy in Puerperal Septic Infection.  
 1903—Recent Contributions to Obstetric Therapeutics.  
 1906—Surgery of the Female Pelvic Floor.  
 1907—Plastic Surgery of the Vagina.  
 1907—A Case of Cesarean Section.  
 1907—Interruption of Pregnancy for Causes Other Than Pelvic Contraction and Eclampsia.  
 1908—A New Technic in Perinorrhaphy.  
 1908—The Radical Abdominal Operation for Cancer of the Uterus.  
 1908—A Case of Congenital Vaginal Atresia.  
 1910—Uterine and Vesical Prolapse.

## THE BROOKLYN HOSPITAL.

By WILLIAM HOLLENBACK CARY, M.D.,

Clinical Assistant in Gynecology, and Gynecologist to the Dispensary, Brooklyn Hospital.

AS late as 1845, Brooklyn, then a city of 55,000 inhabitants and already known as the City of Churches, was without a public hospital. Patients needing hospital care were moved by some tedious and painful means either to the County Hospital situated in what is now Flatbush, or to the New York Hospital. The need of a public hospital became so urgent that Cyrus P. Smith, during his term as mayor, purchased a house on Adams Street which he planned to have utilized as a temporary hospital. This hardly survived its infancy but

started an agitation which soon took definite form, and in the early part of 1845, at a meeting of the Brooklyn Association for Improving the Condition of the Poor, a motion was carried directing that a committee be appointed to convene a public meeting to discuss the establishment of a public hospital. This committee was composed of Cyrus P. Smith, Robert Nichols, and John Greenwood. The first public meeting was held in February of that year and in May the Brooklyn City Hospital was regularly incorporated before the Legislature.



Mr. Smith, at that time President of the Board of Education, was the president of the first Board of Trustees, and Robert Nichols, then mayor, was the vice-president. These two members drew up the first code of by-laws.<sup>1</sup>

It was necessary to raise funds and meetings for this purpose were held at the Brooklyn Institute, then situated on Washing-

tute at which only \$95 were given. Subscription books were taken about also and the public asked to contribute. Private fortunes were not so large in those days and money was not given in large amounts. Forty physicians of the city were given subscription books to distribute, but only two, Drs. Cullen and Corsen, were able to secure money of any significant amount. In the course of a few



ton Street near Concord Street. The first appeals were addressed to the churches of the city. That the response was not encouraging is made plain by two newspaper clippings of that date, one of which deplores the scant attendance at the meeting held in Dr. Spear's church on the previous night, while the other reports a public meeting held at the Insti-

months, however, some \$9,000 were collected and at this time the first large gift was made by Capt. F. Hebard who gave \$20,000 with certain stipulations as to the payment of interest on this amount during his lifetime.

In the meantime an effort had been made to find a suitable location for the hospital. Many sites had been considered and urged and in December of 1848, the Committee on Lands reported that they had purchased from Mr. Howland a plot of seventy-four

<sup>1</sup> Other members of the first Board of Trustees were: Wm. S. Packer, Augustus Graham, Edgar Hicks, Henry Pierrepont, Edgar S. Bartow, A. A. Low, Elisha Hurlbut, Joseph Harper, Peter C. Cornell, Edw. W. Dunham, Geo. Howland, Henry Sheldon, Nicholas Luqueer, and John H. Smith.

lots, at \$200 per lot, bounded by Raymond Street, DeKalb Avenue, Canton Street, and land owned by the County of Kings. Those of us who are familiar with the delightful location of the hospital feel that this committee chose more wisely than they knew. In Revolutionary times this site was a part of that territory known as Cowenhoven's Woods, which, because of the advantage offered by its elevation, was chosen as a location for a fort, named after that fearless leader, General Putnam. In the war of 1812 this section was again fortified and called Fort Greene, which name it popularly retains to the present day. It is an odd coincidence and an altogether fitting one, that this ground stained with the blood of the patriots, should have been selected as the site of an institution devoted to the care of the sick and wounded. But little more than a decade was to pass before its wards were to be taxed to their capacity by soldiers wounded in a war waged to preserve that Union which their forefathers had, on this very spot fought to bring forth.

Funds were slow in accumulating and it became evident that some time must elapse before the hospital could be built. Every day found the demand for a hospital more urgent. In this extremity the trustees turned their attention to the securing of a place where a temporary hospital might be established. So in 1846<sup>2</sup> a frame house situated on Jackson Street (the name was later changed to Hudson Avenue) was purchased from the Misses Titus and on the following year this became the first and temporary home of the hospital.

The first medical staff of the hos-

pital consisted of Drs. T. L. Mason, J. S. Thorne, and Daniel Ayres, attending surgeons, and Drs. H. I. Cullen, Purcell Cook, C. R. McClellan and C. L. Mitchell, who assumed the care of the medical cases. From various sources a medical library was collected to which a student could have access for \$2.50 a year with the understanding that "profane swearing" would be sufficient to deprive him of its privileges. Mr. and Mrs. Bare were engaged as the first attendants and resided in the hospital. Dr. Wm. Swift was the first interne and on December 10th, admitted the first patient to the hospital. The fact that another application for admission was at that time standing became an item of the minutes. The first report of the hospital was published in 1850 and covered the year 1848-49. This showed that 90 patients had been treated during the year, 60 of whom were medical and 30 surgical, with a mortality of approximately 10 per cent. Some of the difficulties encountered in the performance of surgery are well pointed out by a statement in Dr. Ayres' first report: "During the year several capital operations have been performed, and at times the surgeons have found themselves much embarrassed to provide the necessary accommodations for all their patients; thus when all the rooms were occupied, it has become necessary to perform bloody operations in a ward before several sick patients."

Not long ago a feeble old man came to the Brooklyn Hospital to have his sick wife admitted to the ward. He recalled an anecdote of the days when the institution was located on Hudson Avenue. At that time he owned a carpenter shop in the vicinity of the hospital and one day a surgeon came

<sup>2</sup> It is interesting to note that during this year the Brooklyn City Dispensary treated more than 4,000 cases.



from the hospital in great haste to borrow a saw with which to perform an amputation.

A generous gift by Mr. Augustus Graham<sup>3</sup> reimbursed the treasury and made it possible for work to be commenced upon the new hospital. When the ground was broken appropriate exercises were held and this benefactor turned up the first spadeful of old Fort Greene's sod. On

April was ready for occupancy. A general invitation was extended to the public and among those who came were hundreds of school children, brought by their teachers to see this modern Temple of Healing. The work, which in the meantime had dragged along rather unsatisfactorily in the temporary hospital, was now transferred to the new building where improved facilities were provided.



June 11, 1851, more than six years after the building of the hospital was first agitated, the corner-stone was laid by Mr. Graham. Many representative men and women of the city congregated that afternoon upon the slope of the hill. The principal address of the occasion was delivered by Rev. F. A. Farley, and other prominent men spoke.

By spring of the following year the hospital was completed and in

Thus the work began and has continued unceasingly for more than half a century.

In 1858 Pathological Hall was built. This building, separated from the hospital proper, was designed as a place for the study of Pathological Anatomy. In this building autopsies were to be made, coroners' inquests to be held, and lectures in pathology given. The Brooklyn Hospital was the second hospital in this country to have a separate building for the study of pathological anatomy. Bellevue was the

<sup>3</sup> Mr. Graham's gifts to the hospital amounted entirely to about \$38,000. He died before the new hospital was in operation.

first. When the building was opened Dr. J. C. Hutchison, at that time leading surgeon of the city and an active member of the visiting staff, made the inaugural address. In it he congratulated the medical profession that the trustees of this hospital, "while recognizing the value of such humane institutions to their fellow-men were not unmindful that they should also be made adjuvant to the science of medicine." When the Orthopedic Infirmary was opened in 1869 a part of this building was utilized for its work. Under the direction of Dr. Hutchison this dispensary became very active and poor patients from all over Long Island came here seeking relief, for until this time no opportunity had been offered for the proper care of such charity cases. In later years this building became the nurses' home, for which purpose it is still utilized. Designed originally for another purpose, it is not ideally constructed for its present use. It has, however, been made much more attractive by the addition of a wide veranda, and its location, on high ground with spacious lawns sloping to the hospital and street, is most delightful and compensates for the inconveniences of its interior arrangement.

The Brooklyn Hospital Training School for Nurses was established in 1880 by ladies connected with the Fruit and Flower Mission. Mrs. Seth Low was its first president and Miss Snyder its first superintendent. Others who were active in the administration of its affairs were Mrs. F. P. Bellamy, Mrs. T. J. Backus and Mrs. T. R. French. The home of the school was originally in a rented house on Adelphi Street, where, in 1882, the first class of five pupils was graduated. In June of the same year this

school undertook the care of the patients in Long Island College Hospital and performed this service for some months, the nurses going to and from the hospital morning and night. During that year a part of Pathological Hall was given over to the nurses for a home. As the size of the classes increased it became necessary later to use the entire building for their accommodation. For many years the training school was under the management of a Ladies' Board, but in 1906 it came regularly under the management of the Board of Trustees. This school was the first to be established in the city for the training of nurses. The present year marks the close of three decades of its work and is the fiftieth anniversary of the founding of the first training school at St. Thomas' Hospital in London by Florence Nightingale, whose recent death occasioned world-wide expressions of praise and regret.

On March 31, 1883, the name "Brooklyn City Hospital" was changed to "Brooklyn Hospital." This was deemed advisable because, while the hospital was a charitable institution, the name conveyed the erroneous idea that it was a municipal corporation and supported by the city proper.

The ambulance service was established in 1890. Its district includes that thickly populated section about the Navy Yard and along the river front, where many large manufacturing plants have also been established, and covers many of the busy downtown thoroughfares. During the first year the ambulance responded to 971 calls. The service has gradually grown and recently the ambulances have answered on an average 2,300 calls annually, necessitating the maintenance of three complete outfits.

Three years later, in 1893, a four-



story extension was built on the south end of the hospital at a cost of \$60,000, given largely by the Board of Trustees. The basement is utilized for a steam laundry. The first floor is devoted to dispensary work, which has now reached such proportions that its present quarters are no longer

tients receive attention here annually. The third floor is set apart for private rooms. These rooms are well away from the noise of the street and are made most attractive by a southern exposure and the view from them into the tree tops and the park. This additional space made it possible for



adequate. An interlocking system of referring and reporting patients between the dispensary and hospital does much to increase the interest in this work. Special features of this department are the cystoscopic and night gynecological clinics. The second floor of this addition is occupied exclusively by the obstetrical department. This was furnished in honor of Anne Davidson Bedell Low, by her son, and is called the Low Maternity. Between two and three hundred pa-

tients the hospital to accommodate 170 patients.

It is no mere thing of brick and mortar of which we write, however, but a living institution which owes its existence to human enterprise. Whatever service it has rendered and whatever prestige it commands to-day, it owes to those who at different times have given and labored in its behalf. Among this number it will be possible to mention only a few names. Thomas S. Stooke in the early '70's gave most

liberally to the hospital. Dr. John Haslett, whose home still stands furnished but unoccupied on the corner of Joralemon and Clinton Streets, took a very personal interest in this institution and in 1852 was made president of the Board of Trustees, which position he held twenty-six years. He was succeeded in office by Peter C. Cornell, who was in turn succeeded by William G. Low. Later, Alexander M. White became president of the board. Associated with these were such well-known men as Isaac H. Frothingham, Edward Merritt, Henry Sanger, Henry E. Pierrepont and others who rendered the hospital distinguished service.

In addition to the prominent physicians upon the staff, to whom reference has already been made, it would seem appropriate to mention Dr. D. E. Kissam, who served upon the surgical staff, actively and as consultant, forty-two years. In 1868, Dr. S. Fleet Spier was appointed to the surgical staff, in which capacity he served until 1894, which year also marked the retirement of Dr. Kissam. Dr. J. D. Rushmore was also made a member of this staff in 1870 and was active in its affairs for many years.

Since its organization, the hospital has granted diplomas to 187 physicians. Among its alumni, 53 of whom are practicing in this city, was Dr. Walter B. Reed, whose investigation made it possible to control yellow fever and won for him the eulogy of a nation.

Any chronicle of this hospital would be incomplete indeed which failed to acknowledge its debt to the late Dr. George R. Fowler. As its Surgeon-in-Chief for many years, he not only enriched it by his professional attainments but brought to it also his re-

markable ability as an executive, which enabled him to reorganize and improve the service.

By the death of Dr. Francis H. Stuart the professional staff very recently sustained the loss of its highly esteemed and oldest active member. He was appointed Obstetrician-in-Chief to Low Maternity when that department was established and thus served until his decease.

The executive work of the professional staff is now performed by standing committees of one, each committee being responsible for a given department of the work. For instance, such a committee has charge of the operating room work. Under his personal direction methods have been made more uniform, technique improved, and the work in general simplified. Another committee has for some time been engaged in reorganizing the histories. Accuracy and simplicity have been the qualities sought. Good results have been obtained by demanding promptness in history taking and in entry of provisional and final diagnosis. The description of operations is written in the operating room immediately upon the termination of the operation. Correctness and acceptance of the history must be indicated by the personal signature of the visiting physician on discharge and must be verified before the history is released for binding. Histories are bound, indexed, and cross-indexed by a modification of the Bellevue method. Records are almost instantly available. An official nomenclature, for diseases, injuries and operations, which was first adopted in Brooklyn by this hospital, is being put into use.

It is believed that the work in surgery and gynecology has been en-



hanced and the efficiency of the attending physicians and their associates increased by continuity of service. The work of the laboratory is carried on under the supervision of a salaried pathologist, who makes special investigation and under whose instruction the resident pathologist does the routine work.

Thus briefly and imperfectly is related the history of the institution. It

is a story of activity and growth. In the half century and more of its existence many who labored in the early days have passed away. Others have grown weary in the service, but willing hands have been ready to take up the work, striving in common with their predecessors to maintain the high standard of usefulness and efficiency.

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## DAIRY INSPECTION.

By HARRIS MOAK, M.D.,

Bacteriologist and Inspector for the Milk Commission of the Medical Society of Kings County.  
BROOKLYN, N. Y.

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IT is the easiest thing in the world to criticise. To get on a train, go out in the country, rent a rig, drive up to your farm, look over your buildings, equipment and herd, ask you to make several changes or do your work better, all of which will cost you something; in other words to tell you how to spend your money—is easy. No wonder you say to me sometimes, “I wish I had your job.” It is easy to criticise in an indifferent off-hand way, but Gentlemen, *just* criticism is a fine art.

Criticism that you have to report in black and white and stand by is not so easy.

To come to your place and be able to make recommendations or suggest changes that are just to all; to the consumer, to the Milk Commission, to the dealer, to yourself is not so easy. It requires considerable discernment. Though a better lot of men than you never got together yet you are not all alike. To change your ideas and occasionally get you to see things in a different light, in some instances requires but the mild-

est suggestion, at other times a request, and again we may have to firmly demand a change in method or procedure. Some of you take it in good part and like to have deficiencies pointed out; you want to know the cause or get an explanation of bad results. Others of you feel differently about it. So to be a good inspector requires an infinite amount and variety of tact at times. He must have something in sympathy for those whom he judges and be able to get their viewpoint. One must be broad minded and tolerant to escape the odium of bias or partiality. This is not always so easy.

The inspection of certified dairies is also quite a different matter from the routine inspection of ordinary dairies. With a help of the good score cards now in use a man with but meagre understanding of dairy conditions can do well toward giving an estimation of a dairy. But when it comes to the application of bacteriology in a cow stable with the aim of producing a high class of milk it means that an inspector has to have a pretty good

understanding of the subject. He must be able to point out the defects in a definite manner: and what is worth more he must offer means or methods for their removal and know what he is talking about or how he will fall in your estimation. A man has to understand a subject in order to give advice that is acceptable.

Most inspectors are not relished. To have an inspector come "nosing" around, looking in here and there, turning this over or peeping under that; just plain spying will put most anybody on edge. How disagreeably it can be done. How unnecessary to go about distributing the feeling that everybody is dishonest but yourself.

To visit your farm, watch the work, discuss it with you, make suggestions in a gentlemanly way, hear your side of the story and try to help solve the problems of the industry as they arise should be the attitude of the representative sent by your Milk Commission. The late Dr. Pearson well summed it up in his book when he said, "A properly equipped dairy farm inspector must have had special training and must be familiar with and be able to apply, facts from pathology, bacteriology, zootechnics and dairy husbandry."

However, a dairy inspector should not set himself up as the standard of measurement—a virtual claim to infallibility and feel that whoso does not conform to his way of thinking or acting is all wrong.

Proper dairy inspection is helpful not harmful. Inspection of the right sort is very necessary. In the supervision of a dairy there are many things that cannot be known except by visiting the farm. We all of us have ridden the hobby a little, of

thinking that low bacterial counts in milk were all that was necessary; that they would tell the whole story. Surely they are great indicators but they don't tell us whether your cows were in the stable all last winter without ever going out of doors for fresh air and exercise—there is a difference in the air no matter how perfect you may feel your pet system of ventilation to be—bacterial counts do not tell us whether you have good ventilation or whether you have none, whether some of your ensilage has spoiled and you are feeding it just the same, whether you have fed other objectionable food or fed at an improper time, whether the source of your water supply is good or bad; they give us no idea as to the health of your employees, whether your manure pile is just outside the stable door to produce odors and breed flies. None of these things are told by the bacterial counts. Dairy inspection is an indispensable part of the work of supervision. Dr. Pearson has said again, "Unquestionably it is better from the standpoint of the public health, to prevent the contamination of milk than by means of a laboratory examination, to discover evidences of contamination in a sample representing a quantity of milk that has already been consumed."

A good inspector has the privilege of seeing and learning much about the fine points of dairying and often can make helpful use of such information by taking ideas from one farm to another.

What changes and improvements have been made in this work in the last few years. Some of you may have learned of this from your inspector. Only a few years ago when your plant and equipment were new



your dairy may have been the best on the list and you may have gotten the habit of hearing that said. Not only have great improvements been made and new plants are all the time being built with new and better ideas, but your plant and equipment have constantly been wearing out, so one day your inspector urges some repairs or improvements and you feel that he is doing you an injustice when you press for an opinion as to your plant and he honestly tells you that you do not stand at the head of the list but instead he opines that you are pretty well down the line. If you would investigate in an unbiased way as does a good inspector you would admit the fact. Change and decay are certain to come and an inspector cannot always tell you the same good story of being best.

On the other hand a man may have just started in with a brand new plant, a beautiful stable, fine dairy buildings and shining equipment, yet from lack of experience and lack of personal supervision does not get results in proportion to the amount of money he has spent. He visits some of the older plants which in comparison to his may be second hand or worse and fails to understand why they get results better than he does. It may not be easy for the inspector to explain away the differences but the older place by experience has learned how. Perhaps they are lacking in a good many of the refinements yet their results come very comfortably and very uniformly within the requirements of the Milk Commission.

Merely having the best plant does not allow you to sit down with the feeling that you have nothing more to do. Remember that the Milk

Commission judges mainly by the results that are attained and it is surprising that we get milk into the city of such uniform quality from dairies, no two of which are alike and furthermore may differ from each other in dozens of different ways. One of the chief explanations of the results attained by some of the smaller and more ordinary certified plants is the close personal attention given to the work by the owner often aided by his family.

Remember that an inspector is susceptible to impressions the same as anybody else and I want to urge that you certified producers keep up a good impression. Often you can do this with but little expense. Pick up about your buildings both inside and outside, old hay wire, hay slats, feed bags, worn out tools, discarded lumber and the like. It is a good indication of your attitude. These are the things that any visitor as well as an inspector is likely to criticise. A lot can be done in such ways at but trifling expense, and the dairyman who is not making certified milk how he delights in tattling just such inconsequential facts.

A dairy inspector must be consistent. There are many things that can and should be done uniformly at all farms. But to order ensilage fed but once a day at one farm and twice a day at another farm; to demand that all windows and doors be closed at one farm during milking and allow them wide open at another farm; to order mangers that are three feet high in one stable cut down to one foot in height, and in another stable say nothing about mangers that are about four feet high, and at another place say that no manger at all is best—are good examples of in-

consistencies and should not be tolerated.

Competent dairy inspection can be of great help in improving the milk supply. Dr. Sedgwick has emphasized the importance of the control of the source of the milk supply to prevent pollution as follows: "It should never be forgotten that if water were to be drawn, as milk is, from the body of a cow standing in a stable, by the hands of workmen of questionable cleanliness, and then stored and transported over long distances in imperfectly cleaned closed cans, being further manipulated more or less and

finally left at the door at an uncertain hour of the day, few would care to drink it because its pollution and staleness would be obvious. It is clear, moreover, that it requires and deserves more careful treatment than water for it is more valuable, more trusted and more readily falsified or decomposed."

With milk no less than with water can we do most toward insuring a clean wholesome supply by watching and guarding its source. Adequate dairy inspection is the means. Sooner or later it must be uniformly done throughout the dairy industry.

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## THE EFFECT OF INFLUENZA ON THE HEART.

By EDWARD E. CORNWALL, M.D.,

Visiting Physician to the Williamsburgh and Norwegian Hospitals.  
BROOKLYN, N. Y.

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**I**NFLUENZA resembles diphtheria in several noteworthy particulars.

In both there is a local lesion of mucous membrane which occurs in influenza somewhat more widely than in diphtheria; for in the latter it is found almost always in or near the throat—throat, nose or larynx—while in influenza, though often found in the throat and nose, it occurs frequently in the trachea, bronchi, lungs and conjunctivæ, and occasionally in the stomach and intestines. In both diseases the specific toxemia very distinctly affects the nervous system, producing in influenza neuralgia and neuritis, and in diphtheria paralysis of particular nerves. And in both diseases there is marked disturbance of the heart. In all the acute infectious diseases the heart is more or less disturbed by the specific toxemia, but this effect is regularly pronounced, that is, regularly out of proportion to

the other symptoms in influenza and diphtheria, and we may add, in typhoid fever; but in the last the toxemia produces its effect after acting for a long time while in influenza and diphtheria it disturbs the heart very quickly, perhaps even more quickly in influenza than in diphtheria. In comparing the effect on the heart of the toxins of influenza and diphtheria it should be noted that the effect in diphtheria is usually more intense and persistent; recovery from myocardial weakness usually takes longer in diphtheria than in influenza.

As most cases of influenza get well, it is not often possible to know how much of the cardiac derangement was due to nervous disorder and how much to actual myocardial degeneration. It may be that the toxemia of influenza affects more frequently than is generally supposed the muscle of



the heart as well as the nerves which are involved in its mechanism; and this view is supported by the analogy of diphtheria, in which degenerative changes in the myocardium are of common early occurrence.

Signs and symptoms referable to the heart which may be found in influenza are weakness, irregularity or intermittency of the heart's action or the production of hemisystoles, rapid action, bradycardia, softening of the heart sounds, equalization of the two sounds at the apex, blunting of the pulse wave.

The weakening of the heart and the irregularities in its action may pass away quickly or persist for a longer or shorter period. I saw a pulse rate of thirty-six persist for three weeks after all other symptoms had gone.

Attacks of syncope are not uncommon. I recall two cases which began with such an attack; both were otherwise of mild type and recovered completely.

While we seldom have an opportunity to inspect the heart muscle even in cases with marked heart symptoms, such an opportunity does occasionally occur. In one case of influenza which came to the autopsy table I found the characteristic changes of acute myocarditis. In this case the patient, beginning with the symptoms of an ordinary attack of influenza, shortly developed pain in the epigastric region and rapidly increasing dyspnoea. After a few days of agony and delirium he died with signs of failure of the right ventricle. The autopsy showed cloudy swelling of the myocardium and a clot in the right ventricle.

Pericarditis and endocarditis caused by direct infection with influenza germs have been noted. I have

seen one case in which pneumonia and pericarditis developed, which was followed by pericardial adhesions and gradual dilatation and failure of the heart. But pericarditis and endocarditis of pure influenza origin are very rare occurrences; they are less common in this disease than in most other acute infectious diseases; the cardiac condition characteristic of influenza is that which is produced by the specific poisoning of the nervo-muscular apparatus of the heart.

It is well to bear in mind this susceptibility of the heart to the specific toxemia in our treatment of influenza. It makes absolute rest in bed an essential part of the treatment, as it is in the treatment of diphtheria. It is my practice to keep every patient with influenza in bed until at least twenty-four hours have passed after the disappearance of the last symptom, whether it be a cardiac symptom, or pain, or cough, or prostration, or loss of appetite, or loss of taste, or sudden bursts of perspiration—the patient must have been free from every one of these symptoms for twenty-four hours before I allow him to put foot on the floor; and after getting up if any symptom returns, back to bed he goes. With such treatment ordinary cases without complications will get well in three days, and severer uncomplicated ones will recover inside of a week. Of course if the patient delays going to bed in the beginning of the disease recovery may not be so speedy.

This tendency to heart weakness contraindicates the use of heart depressant drugs, notably the coal tar analgesics, which once had so extensive a vogue, and which are still

much used. It is possible that the use of these drugs favors the development of complications, particularly pneumonia, and even fatally depressed some weak hearts which might otherwise recover. If an analgesic is needed for the pains, which seldom last more than two days if the patient is kept in bed, I prefer to use morphine or codeine.

Strychnine in small doses is almost always useful and if heart weakness is pronounced, it should be given in full doses, for it is the best heart stimulant for this condition; but in severe cases strophanthus, in doses which do not exceed three minims of the tincture, may be added, and perhaps aromatic spirits of ammonia or caffeine. In aged pa-

tients alcohol can usually be given with benefit.

During convalescence in ordinary cases the heart calls for no special treatment except, possibly, continuance of the small doses of strychnine; but if cardiac weakness, or accelerated or irregular heart action, or bradycardia, persists, the patient should be kept in bed or quiet until these symptoms have disappeared. Sudden death from heart failure is much less likely to happen in influenza than in diphtheria, but neglect to safeguard the influenza heart by appropriate rest certainly invites accidents and increases the liability to complications and sequelæ, and may lay the foundations for future cardiac trouble.

1239 Pacific Street.

## THE TREATMENT OF PNEUMONIA IN CHILDREN.

By WALTER D. LUDLUM, M.D.,

BROOKLYN, N. Y.

THE writer prepared the following paper as part of a symposium on the treatment of pneumonia. It deals chiefly with his personal management of lobar- and broncho-pneumonia in infancy and childhood.

The two types differ so widely that, although many therapeutic measures are common to them both they should receive separate discussion. Lobar-pneumonia, though contrary to former belief, common, yet is the less important of the two and will be taken up first.

This is a definite, infectious disease, attacking a child in good health or, less commonly, as a mere coincident with another disease and not caused by it. It runs a definite course of a week, more or less, and

terminates usually by crisis though lysis is not rare. Its mortality is low. No treatment, probably, essentially modifies this course, though there are short, "abortive" cases which may have been cut short by treatment; and our efforts are mostly limited to maintaining as good conditions as possible for passing through this course.

When a child is suddenly attacked with a high fever, rapid respiration and the other symptoms suggestive of pneumonia, appropriate measures should be instituted without waiting for a positive diagnosis. An active cathartic, calomel or castor oil, should first be given and the hygienic regime established.

Of first importance is fresh air: leaving out of consideration the absolute out-of-door treatment, the best



room available should be chosen, one having a south exposure, if possible. Except in the most bitter weather or when the wind blows directly in; the windows or at least one should be fully opened. If there is too great a tendency for direct draft on the patient the wind should be deflected by screens, preferably placed before the windows rather than around the bed. If the room is large this is rarely called for, if small it usually is.

The child should be dressed in a light under-shirt, band, if customarily worn, and its ordinary night-clothing, and covered with enough bed-clothes for his comfort and *no more*. He should be kept in his crib but should not be allowed to remain on his back or the same side. For changing clothing and other manipulations requiring exposure, he should be taken to a warmer room if more convenient, or the room should be temporarily closed and warmed.

The diet should be much reduced from that of health. In the nursing infant, water should be given before nursing and, if necessary, the time of nursing shortened; the interval between nursings should usually be rather shorter than in health. In a bottle-fed infant milk should be cut out for a day or two and the child fed on cereal gruels and broths, then milk should be gradually added as the digestive capacity allows.

In the child from a year up, in health taking a mixed diet, the food at first should be of the lightest; it does no harm if for a day or two he takes nothing but water or thin cereal gruel; after that, cereal gruel, broth, milk, diluted with cereal gruel or water or lime-water; still later toast, thicker cereals, junket, ice-cream, etc. Orange juice may be

given, kept well away from milk. At all ages the importance of good quantities of water is to be kept in mind.

The bowels are to be kept regular by enemata and an occasional cathartic preferably the mercurials. It is superfluous to emphasize the importance of continuous watchfulness of the abdominal condition.

*External applications.*—A tepid bath should be given daily to maintain the proper function of the skin.

In the early stage counter-irritation may be of value; the best form being, I think, the home-made mustard-paste; this should be prepared by mixing one part of mustard with two or three parts of flour, using the white of an egg and enough warm water to make a smooth paste; this should be spread on muslin or cheese-cloth and applied to the affected part, which has been specifically marked by the medical attendant, and allowed to remain until the skin has been well reddened, usually ten or fifteen minutes; after its removal the skin should be well oiled. If it is repeatedly used the strength must be reduced after the first two or three applications. It may be applied every three or four hours but is rarely required more than two or three times a day.

Poultices and clay pastes are positively harmful in the infant and, to say the best of them, of very doubtful value in the older child; they make a considerable weight for the weak muscles and soft bones of a child to raise with each respiration; they prevent proper radiation of heat and interfere with excretion from the skin. They should not be used. Similarly the formerly much-used pneumonia jacket is now condemned

by most, if not all, pediatricists as useless and harmful.

Aside from its use as antipyretic and sedative mentioned below, the local application of cold is at times very valuable: when cyanosis is marked and respiration shallow nothing aids deeper respiration and clears up the cyanosis as well as a cold chest compress. A half dozen thicknesses of gauze or two or three of linen are cut so as to fit the chest from neck to lower edge of ribs and wet in water from 70 to 85 degrees depending on the age of the child, the height of the temperature and the extent of reaction induced; at times it is sufficiently effective to begin at a temperature about 90 and gradually reduce; this is covered with light flannel and changed hourly. This and other cold applications should be used very cautiously if at all for a child under two years of age. At all times see that the limbs are kept warm.

If the fever is giving trouble—and this refers quite as much to nervous manifestations as to the absolute height of the temperature, though a temperature of 105 degrees deserves attention *per se*, hydrotherapeutic measures should be employed. The simplest and, at the same time least effective, is cold sponging; if this suffices or if trained attendance cannot be had it should be the method employed. At times, especially in infants, mere tepid water will control very well; more often the water should be used colder, beginning at 90 and running down to 70 and at times 60; alcohol should be added in the proportion of one to four or five. After the sponging the skin should receive moderate friction. This may be done for ten or twenty minutes every two hours.

If simple sponging is not adequate the best way to secure more positive action is by the cold pack: The bed should be protected by a rubber sheet covered with a thin blanket on which the child should be laid without clothing; a bath-towel in which arm-holes have been cut, is wet in water at a temperature of about 90 and placed on the child so as to reach from neck to mid-thigh. This is to be wet in water of lower and lower temperature down to 60 degrees until the child's temperature has reached 102, the temperature being taken every half hour until this is reached. By this gradual reduction no shock is felt. Keep the head cool and the feet warm.

The shock, fright and exposure caused by the full cold bath are so great that it is seldom or never in order.

With the greatest emphasis on the fact that coal-tars are very rarely to be given there is an occasional case where a small dose of phenacetin works admirably to control fever and restlessness.

*Medicinal treatment.*—At the beginning of an attack, in addition to the cathartic, which has already been mentioned, I believe that a refrigerant such as potassium citrate, in dose of one grain to each year of the child's age up to four, or liquor ammoniæ acetatis, 15 drops at one year up to one dram at four, with tincture of aconite one-quarter drop at six months to one drop at three or four years greatly adds to the child's comfort and has some value in reduction of fever. This is usually kept up for one or two days. An average case will frequently require no other medicinal treatment.

Stimulants are usually not necessary and should never be given till



the occasion arises. If there is threatened failure of the heart, particularly at the crisis, the best drug is usually strophanthus, given in the form of the tincture, one drop for a child of six months to a year two drops for a child from three to five. Strychnine is occasionally called for in a heart weak and irregular and not very fast. For right heart failure nitro-glycerine is indicated. Alcohol, if needed at all, must be used in good-sized doses, in the form of whisky or brandy.

*Broncho-pneumonia* and its treatment are very different matters from the lobar: it is nearly always secondary to some other more or less prostrating disease such as the exanthemata, or to a bronchitis itself perhaps occurring because the child is below normal. It is protracted and requires all the strength the child can preserve; this fact is never to be lost sight of. Its course is, contrary to lobar, decidedly modified by treatment.

The rest in bed must be complete and all measures of treatment must be carried out with the least possible disturbance. Too frequent treatment should be avoided, food, medication and any other should be so timed as to come together and never at a less interval than two hours, when possible, three.

Fresh air should be freely employed as in the lobar type; yet the possibility of danger from drafts is greater and here, as in any condition with bronchitis they should have consideration. With rare exceptions I have at least one window wide open but carefully guarded, when necessary. When feasible the room should be kept at a temperature of 65 to 68, but not higher. In these feeble children, local heat should be supplied

when called for and the possible necessity should always be held in mind.

Dietetic directions in form are much the same as in lobar, in fact the digestive capacity is so much less that the details are much more difficult to manage. The nursling should be fed at the same or rather shorter intervals and the nursings preceded by one or two ounces of water. In the bottle-fed the intervals of feeding should never be reduced below two hours and the amount at a feeding and its milk strength lowered; the diluent should usually be a cereal gruel and, when the digestion is excessively weak this may be dextrinized. Similarly the milk may be peptonized but I have failed to get much benefit from peptonization when proper dilution with gruels has been carried out. At the same time, this being such an exhausting disease and not starting from health, as much food should be given as can be disposed of and it is less commonly necessary to cut out milk altogether at the beginning than in the lobar.

In older children the diet should consist of milk, usually diluted with a cereal gruel, or with water and lime-water to two-thirds or one-half its usual strength, and of broth. Later the ordinary breakfast cereals, well-cooked; toast, junket, corn starch, etc., may be added; ice-cream may be given, but is rather unsafe unless home-made and then of not too rich cream. At all ages plenty of water should be supplied and at times this may be made more grateful by the addition of small quantities of fruit-juices, especially orange.

The actual feeding, as well as other simpler attentions, are often best left to the mother or usual at-

tendant; particularly as the appetite is frequently poor and the children have to be urged. Forced feeding can rarely accomplish anything, and persuasion is better. Gavage and rectal feeding are occasionally but only rarely of service.

*External applications.*—Poultices, pneumonia jackets and their like are to be condemned only more strongly than in lobar-pneumonia; for this is typically an asthenic disease and their damage is even greater. On the other hand counter-irritation in the early stages is of very decided value, because its influence is felt on the accompanying bronchitis. The mustard paste as already described is a very satisfactory mode of application.

The cold chest compress is useful under the same conditions as in lobar-pneumonia, but the child's condition must be watched with even more care; shock must be watched for and the extremities kept carefully warm; its value in selected cases and given with extreme care is very great.

Inhalations are of great value while the secretion is still scanty; plain water, lime-water or best, I think, water containing ten to twenty drops of creosote or one teaspoonful of compound tincture of benzoin to the pint. The inhalation cannot be given with full satisfaction except under a tent, but there is some value in the free escape of medicated steam in the room. After free secretion has been established I think the inhalations are of no further use.

A full sponge bath may be given daily for cleanliness and to keep the skin active. Hydrotherapy should be carried out just as in the lobar type, tepid or cold sponging or the cold pack; watch carefully for shock or cold extremities.

*Medicinal treatment.*—Laxatives should be employed as needed but the initial cathartic is not a routine measure as in lobar.

Every book or article on the subject deplors the upsetting of the stomach by syrupy mixtures so it would seem as if that item deserved mere mention. At the same time expectorant drugs—so-called—are of value because of the bronchial irritation. I most commonly employ ipecac in doses of two drops of the syrup for a one year old, three to five drops for a five year old or upward; with one-half grain of ammonium chloride for the younger age, one grain for the elder; in these doses the stomach is rarely deranged. If cough is very distressing and unproductive use codeine one-thirtieth or dover's powder one-fourth grain for a child of one year. After secretion is well established if an ammonium salt is still needed to aid in its expulsion, the carbonate is the best and should be given in similar small doses or in the form of the aromatic spirits, three to five drops at the age of one year, ten drops at five years. Creosote in the form of the carbonate is quite useful in some cases in the later stages but I rarely use it in children under four or five years; at this age the dose is two or three drops.

Stimulants are needed much more often than in the lobar type but by no means should they be used too early: Strychnine is the best if the pulse is weak and irregular and not particularly fast; one-three hundredth to one-two hundredth if the child is one year old, one-one hundredth if five years. If the pulse is rapid, *i. e.*, 150 or upward when the



child is asleep strophanthus is indicated, one drop at one year, two drops at five. Alcohol should be left until late, when, if needed at all, the dose required is large, twenty or even thirty drops of whisky or brandy well diluted at the age of one year. In cyanosis glonoin in dose of one-two hundredth grain to a one year old child may be of value and in extremely shallow breathing atropine one-four hundredth for the same age.

With good arotherapy oxygen is rarely necessary but in cases with deep cyanosis it may save life.

A few words should be said about complications: a rise of temperature, when the disease has been progress-

ing favorably, should always suggest the onset of pleurisy, pyelitis or otitis media; this whether there is any pain or suggestion of local trouble or not. The treatment does not here concern us but their possible presence as a modification in the other treatment.

During convalescence milk and eggs should be added to the diet to the limit of tolerance and all other measures which can lead to hyper-nutrition, as tonics, especially cod liver oil and iron, should be employed. Fresh air, of course, to the fullest degree. When it is possible, complete recovery favored by removal to a more balmy climate than our own.

## THE TREATMENT OF PNEUMONIA IN CHILDREN.

By JOHN D. SULLIVAN, M.D.

I DESIRE to report a series of 117 cases of pneumonia treated in St.

John's Home during the last two years without a single death due to uncomplicated pneumonia. This institution is an Orphan Asylum in this city having about 1,200 inmates ranging from two to fourteen years of age. During the year 1908 we had 38 cases of pneumonia, including lobar-pneumonia and broncho-pneumonia complicating or following other diseases. Of the 38 cases 37 recovered and one died of measles complicated with broncho-pneumonia. The total mortality among the 1,200 children for the year 1908 was two: one death was caused by tuberculosis and the other by measles and broncho-pneumonia. During the year 1909 we had 81 cases of pneumonia, including lobar-pneumonia, lobular-pneumonia, broncho-pneumonia, and septic-pneu-

monia complicating other diseases. Of these 81 cases, 80 recovered and one died from measles complicated with gangrenous stomatitis or noma followed by septic-pneumonia. In this case noma was the real cause of death, for the soft palate and one cheek became gangrenous before the patient died. During the months of April and May, 1909, we had 111 cases of measles in the institution. Of these 111, 18 had broncho-pneumonia and recovered and one was complicated with noma or gangrenous stomatitis and septic-pneumonia and died. During the two years of 1908 and 1909 we had a total of 119 cases in which pneumonia entered as a factor and 117 recovered. The mortality from pneumonia *per se* was *nil*. The total mortality among the 1,200 children during the year 1909 was two,

the same as the year previous. One death was due to tubercular meningitis, and the other to measles, noma, and broncho-pneumonia.

The treatment of these 117 cases of pneumonia which resulted in complete recovery was based on the principle that the disease is caused by the presence of pathogenic bacteria in the blood which results in a toxemia—in other words, that it is an infection and should be dealt with accordingly. The disease is a struggle between the infection and the vital resistance. The toxemia which accompanies the disease does more harm than the inflammation in the lungs. In fact, it is the toxemia that causes nearly all the grave symptoms and the *mortality*. With this conception of the pathology of the disease in view the indications for treatment are to conserve the natural forces as much as possible and to establish a good functional activity of all the emunctory organs of the body—mainly, the bowels, kidneys, lungs and skin. In doing this great care is exercised to avoid doing anything which would interfere with healthy nutrition and normal leucocytosis and phagocytosis. This plan of treatment is very simple indeed, and involves doing very little work. At the onset of the illness the patient is put to bed in a well ventilated room, windows open day and night, and a mild cathartic, usually a small dose of calomel, is administered. No other drug is given on the first day, nor subsequently unless there is some special indication demanding it. Liquid diet—usually milk—is given at

regular intervals of about three hours and a liberal supply of water provided which the patients take with more relish than anything else. A mixture of equal parts of spirits of turpentine and camphorated oil is applied two or three times daily to the chest, abdomen and back, and briskly rubbed in. If the temperature runs unusually high and the patient becomes delirious it is an indication that there is an intense degree of toxemia due either to the infection or to a faulty metabolism or probably to both. Hence, the supply of food is diminished and the amount of water increased, catharsis established, and—in surgical parlance—good drainage maintained. If the stomach is irritable and the patient be unable to retain or digest a proper amount of food, alcohol in the form of whiskey is given in small quantities as a food, never as a stimulant. About only one-fifth of those 117 cases received any whiskey or medication, except an occasional cathartic and the usual embrocation of turpentine and camphorated oil. Nearly all the cases of lobar-pneumonia terminated by crisis in from five to seven days and were out of bed in from two to three weeks completely recovered. In about seven cases there was delayed resolution of the hepatized lung protracting the convalescence for about two months. One case developed empyema of the pleura and required opening the chest wall and resection of a portion of one rib and drainage. So far as is known there was no permanent disability as a result of the pneumonia.



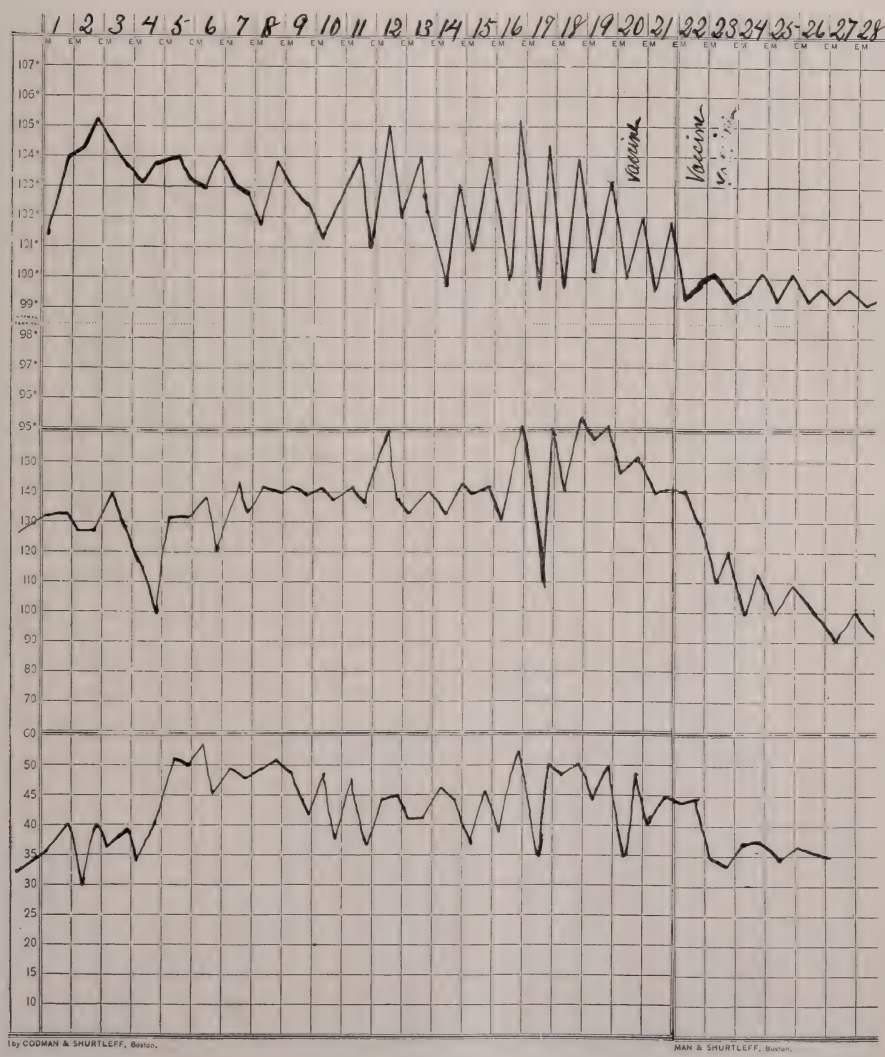
# A CASE OF UNRESOLVED PNEUMONIA IN A CHILD TREATED BY MIXED VACCINES.

By LOUIS C. AGER, M.D.,  
BROOKLYN, N. Y.

VACCINE therapy in pneumonia has received considerable attention in medical literature during the past two years but a large majority of the cases reported have been in adults. The clinical course of an average case of lobar-pneumonia in a child is a distinct contraindication to the use of inoculation treat-

ment. The very brief course and the prompt resolution in a large majority of such infections would absolutely prevent any accurate conclusions as to the value of any routine line of treatment.

The clinical chart of the case here reported indicates why an extraordinary line of treatment was tried.



165 CODMAN & SHURTLEFF, Boston.

MAN & SHURTLEFF, Boston.

Nineteen days of lobar-pneumonia in a child is a sufficient indication for trying something different. It is manifestly impossible to know with certainty whether the prompt recovery was due to the treatment or whether it was a mere coincidence.

The case was as follows:

Female, age 9 years. Father and mother normal.

A previous history of rheumatism and "acute Bright's disease" with convulsions some years previously. Three months before the present attack the urine was normal but there was a slight mitral presystolic murmur. On the sixth day of a moderate attack of measles the patient developed a unilateral pneumonia which involved both lower lobes of the right lung within forty-eight hours. I saw her first in consultation on the eighth day of the disease. At this time both lungs were so full of coarse moist rales as to suggest pulmonary edema, and the pulse and respiration were correspondingly serious. The dullness over the lower part of the left lung was still pronounced. I saw her again on the twelfth and on the sixteenth days of the disease. During this time there was very little change in the physical signs except that the right lung showed some light indication of consolidation at the apex.

On the eighteenth day of the disease the physician in charge was taken ill and requested me to take charge of the case. Up to this time the treatment had been by counter irritation and very full heart stimulation. A needle had been used at three different points where the dullness was most marked to decide the question of empyema. Nothing was found. The examination of the sputum on the eighteenth day showed pneumococci, streptococci and staphylococci in large numbers. No tubercle bacilli were found. A von Pirquet test was negative.

The condition of the circulation was so bad that I expected her to die at any moment. With the consent of the physician in charge I injected on the twentieth day of the disease 20,000,000 pneumococci, 20,000,000 staphylococci and 10,000,000 streptococci. The same afternoon the patient showed very marked improvement in all her symptoms and the usual rise of temperature did not occur. (If this was due to the vaccine it was a much more rapid action than is usually expected.) On the twenty-second day I injected respectively 30,000,000, 30,000,000 and 15,000,000 bacteria from which time the recovery was rapid and uneventful.

137 Clinton Street.



## LONG ISLAND MEDICAL JOURNAL

A Forum for the Discussion of all Topics involving the Medical Profession and especially that of Long Island.

EDITOR-IN-CHIEF

PAUL MONROE PILCHER, A.M., M.D.

ASSOCIATE EDITOR

JAMES MCFARLANE WINFIELD, M.D.

EDITORIAL OFFICE:

145 GATES AVENUE, BROOKLYN, N. Y.

Further Information on advertising page 3

OCTOBER, 1910.

### THE COUNTY MEDICAL SOCIETY AND THE HEALTH DEPARTMENT.

IT is to be regretted that for the past few years the relationship existing between the Health Department of Greater New York and the Medical Society of the County of Kings has not been characterized by that pleasing cordiality of mutual endeavor which renders work along parallel lines free from friction. We speak of the Medical Society of the County of Kings as the medical profession of Brooklyn because the Society represents in a concrete form the wisdom, experience and civic pride of the best physicians of the borough and accepts for all the gage of battle.

When Brooklyn, through consolidation, lost its identity, the Departments of Health were merged into a central body representing the different boroughs, with its headquarters established in the Borough of Manhattan, Brooklyn was honored with a local representative designated as Assistant Sanitary Superintendent, invested with powers of an automaton. If a semblance of due consideration had been shown to us, this centralization of power would have been received with quiet acquiescence, but

when it assumed an attitude of despotism a revolution followed.

Possibly education made us jealous of the usurpation of what we considered our rights. Previous to the destruction of the autonomy of Brooklyn the personnel of the department was distinctly local, from the Commissioner down to the janitor. The medical attachés were personally known to each other and were members of the County Medical Society. In questions pertaining to the conservation of the public health, consultations with members of the Society were of frequent occurrence. The ear of the Commissioner was receptive to requests or grievances of his subordinates in office, and courtesy was more in evidence than autocratic red-tapeism. Conscience was the arbiter of an honest performance of duty, though in this regard it may be said that there were instances of consciences not working overtime. There were shirkers then as now—such will always exist. With the majority of red blood-celled men, honor is a greater incentive to duty than espionage.

The public does not interest itself to any great extent over the acts of the Board of Health. It knows that a Health Department exists. It has a vague idea that it is composed of physicians of the community who have a voice in its administration. *It is not generally known that the Board of Health consists of but three men, the Commissioner of Health, the Police Commissioner and the Health Officer of the Port.* It is this Board which passes upon the gravest problems of the health of the community. Why should not this Board organize into a Consulting or Advisory Board the different physicians connected

with the department. The knowledge obtained in their various duties would certainly be of great value, add prestige to their positions, and enable them to demand remuneration commensurate with their accomplishments. The power of the County Society in the community is admittedly purely moral, yet its voice is most effective when raised against injurious health regulations or the absence of proper regulations. It can mould public opinion to such a degree that failure to heed its admonition would be fatal to tenure in office. This was well exemplified not long since in the protest of a well-known physician aided by the County Society against the use of the Calumette test. The public health and legislative committees of the County Society keep *en rapport* with the health conditions of the city, and have had several conferences with the present Commissioner of Health, Dr. Lederle, who since his initiation into office has exhibited a most liberal spirit towards Brooklyn. Our duty is to meet this conciliatory policy in the spirit in which it is extended and thus achieve results not obtainable by acrimonious criticism.

As a result of the views expressed demonstrating the necessity of a Biological Laboratory situated in the Borough of Brooklyn, at a conference between members of the Society and the Commissioner of Health the adoption of this plan is at present moment under the serious consideration of the Board. The chief obstacle to its realization will be the granting of the necessary funds by the Board of Estimate.

Since writing the above, Commissioner Lederle has requested the Executive Officer of the Medical Society of the County of Kings to nom-

inate a committee of three members to form part of a committee of the Department of Health, to investigate the cause of infant mortality in this borough. From present appearances there exists an era of mutual consideration and endeavor between the medical profession of this borough and the Department of Health of the Greater City.

JOHN C. MACEVITT.

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### THE STATE LEGISLATURE.

THE last regular session of the State Legislature has 549 new laws and amendments of existing laws to its credit. Three more were added in extraordinary session. Were all these laws needed? Were these laws all that were needed? Have the taxpayers reaped a benefit proportionate to the cost? These questions we leave to the reflection of the reader.

That our lawmakers have a due appreciation of the value of their services to the people would appear from the fact that they have referred to the legislature of 1911 a proposal to increase the salary of the Governor from \$10,000 to \$20,000 a year and another fixing the salary of a senator at \$3,500 a year and that of an assemblyman at \$3,000 a year. Good laws come high and bad ones are not inexpensive. Laws we want are sometimes hard to get at any price.

We did not want the new automobile law. It imposes a heavy tax upon doctors and other motorists for the protection of the public and the improvement of the highways. Yet no equivalent tax or restrictions are placed upon the owners of dangerous horse-drawn vehicles and the State roads are subject to use and impair-



ment by the heavy traffic of farmers and teamsters who, forsooth, are given the right of way. The qualifications of chauffeurs are passed upon by examining boards largely made up of professional politicians who are always working for the people and who are reputed to know how a machine should be run.

Doctors and others have long looked for amelioration of telephone conditions, but our Solons have not yet seen fit to place the telephone under control of the Public Service Commission, where it belongs.

Could the enemies of medical research and the friends of smallpox establish their cause the revenues of the doctors would speedily climb, but so far our lawgivers have refused to be hoodwinked by the hysterical misrepresentations of these ignorant and misguided individuals.

Prescribing and dispensing cocaine and eucaïne are hedged in by new and cumbersome restrictions. The pharmacist filling a prescription calling for cocaine or eucaïne is required to give to the person to whom the drug is dispensed a certificate stating the name and address of the druggist dispensing the same, the name and address of the physician who prescribed it, the amount of the drug and the date of sale. Any person other than a licensed pharmacist, licensed druggist, duly registered practicing physician, licensed veterinarian, licensed dentist or a wholesale dealer in, or manufacturer of, cocaine or eucaïne, having either of these drugs in his possession, without the aforesaid certificate for more than ten days after the date of such certificate, shall be guilty of a felony. Failure of the druggist to comply with the law is an equally grave offence. Yet

tropocaine, novocaine, alypin, orthoform, anesthesin and other similar drugs may be had *ad libitum*.

An attempt to suppress the practice of medicine and of dentistry by corporations did not receive the approval of the legislature.

For the ability to continue the prosecution of illegal practitioners in New York City we are indebted to Mayor Gaynor. The fines accruing from these prosecutions, the only means at our command for meeting the costs thereof, would have been diverted to the city treasury had the action of the legislature prevailed; it was disapproved by the Mayor.

Several laws of 1910 relating to the betterment of hospital conditions, the care and protection of the insane and other matters of medicine and sanitation commend themselves as sound legislation.

On the whole we may congratulate ourselves that we have fared so well at the hands of the legislature of 1910. Future legislatures might do even better for medicine and for the people if they were more ready to take the doctors into their confidence.

C.J.

*This was written by Dr. Charles Jewett and received by the editor on the day of Dr. Jewett's death.*

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### THE NEW LAW REGULATING THE SALE OF COCAINE AND MORPHINE.

*Section 182 of the Municipal Code of  
the State of New York.*

"Section 182. No cocaine or salt of cocaine, and no morphine or salt of morphine, either alone or in combination with other substances, shall be sold at retail by any person in the city

of New York, except upon the prescription of a physician."

**T**HIS section became a law in September, 1910. It places the pharmacist in an entirely new position, and it is believed by the writer that the leading members of that profession are well satisfied, in as much as it relieves them from dispensing a large number of patent medicines in which there has been very little profit. It is bound to increase the prescription business of all druggists, and will greatly decrease the indiscriminate use of cocaine and opium.

It was amusing to witness the excitement of some of the newspapers when their *space fillers* or *professional alarmists* discovered this new section.

The *Brooklyn Daily Eagle*, of September 4th, contains the following, under big head lines:

**CAN'T BUY COUGH SYRUP WITHOUT  
PRESCRIPTION.**

NOR CAN YOU GET PAREGORIC FOR THE BABY.  
HEALTH DEPARTMENT ISSUES A UKASE  
WHICH CURTAILS THE LIBERTIES OF  
THE PEOPLE.

"If the baby has colic and your mother-in-law from the farm up-state says that a few drops of paregoric will stop his cries, or if you have a pain under the waist-band and fear that the cholera germ has passed Quarantine, and you want a small bottle of sun cholera mixture; or if you forget your umbrella when the rain was falling and you have a cough and want some syrup of white pine, com., do not think that you can slip into the nearest drug store and get what you have been accustomed to buy, for there is a new regulation of the Health Department, which prohibits the sale of any preparation which has any morphine or salt of morphine in it, and most of the old-time remedies to cure these ills have the forbidden sedative as part of the compound. Hereafter, or until the ruling is reversed, you can only get these preparations through a prescription written by your doctor, and the druggists say that it will usually cost from \$1 to \$5 to get the order entitling you to purchase what you have been accustomed to pay a dime or a quarter for.

The *Eagle* goes on further to state that the druggists now find that the new ruling takes in many of the standard family remedies. In this list of *standard family remedies* which the *Eagle* complains should not be restricted are included: *paregoric; syrup of white pine comp.; Brown mixture—liquid, pills or tablets; Dover powder—liquid, pills or tablets; Tully's powder—pills or tablets; deodorized tincture of opium; wine of opium; sun cholera mixture; Squibb's cholera mixture; chlorodyne; Stokes' expectorant; Godfrey's cordial; Winslow's soothing syrup; Gross or Brown-Sequard's pills (neuralgic); Jackson's pectoral syrup; Warburg's tincture; syrup of white pine and tar; tincture of opium or any pill, tablet, proprietary or patent preparation containing opium or morphine.*

A druggist in commenting upon the section, said:

"This new ruling places the druggist in a peculiar position." No truer word was ever spoken than this. The above list of drugs unquestionably contains most of the drugs which are useful in the less serious medical ailments of the public, and the "peculiar position" which the unscrupulous druggist is now placed in is that he is no longer able to practice medicine and prescribe for the public without infringing the law. A druggist as a rule treats more patients daily in his store and prescribes for them one or the other of the above mentioned remedies more often than does the most prosperous physician in the city of Brooklyn. That is one of the chief reasons some druggists object so strenuously to the taking away from them one of the chief sources of their practice. To the physician it means simply that the



sale of cocaine and morphine is prohibited to those who have become addicted to the drug habit. There is nothing specially to his advantage in the enforcement of this law. His interest, however, in the public is such that he will insist upon the law being carried out.

### CONCEALING THE TRUTH ABOUT THE CHOLERA EPIDEMIC.

**D**URING the month of September the plague spread unchecked throughout Russia, reaching almost to the Manchurian border. In Asiatic Russia there have already been more than 100,000 victims, and the total number of reported cases to date is about 200,000.

Cholera is epidemic in certain parts of Italy, and no doubt there are numerous other localities where the disease has broken out but its presence is denied by the local health boards. At the present writing one death from cholera has already occurred in Rome and other cases are known to exist. In Naples it is no longer possible to hide the facts, and the presence of the plague is acknowledged.

In Hungary many new cases have been discovered and the death rate is relatively high. Even in Hungary they have been slow to report the presence of cholera.

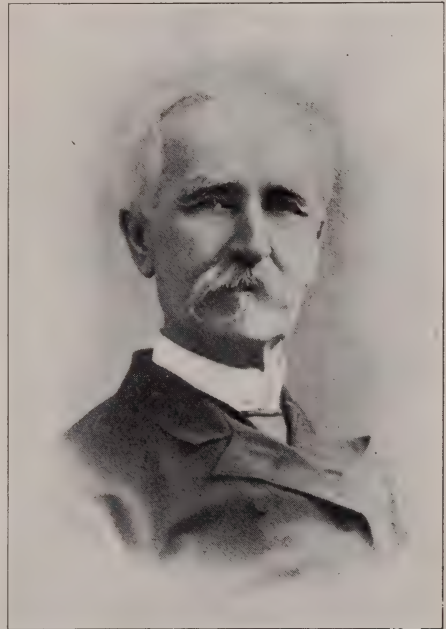
Why should the various cities hesitate to warn their neighbors when so dangerous an enemy is discovered among them? Is the injury to commerce commensurate with the loss of a thousand lives? Or is it shame which they would hide by denial, until the disease has become widespread? It is truly a disease of filth, but the better classes are made to suffer by

the carelessness of the unclean. We must protect ourselves by force if necessary, but when a disease of filth breaks out, acknowledge its presence at once, and then clean house, and give those who are careful a chance to protect themselves and their families. The crime is not in finding the disease but in concealing its presence.

### CAPT. THOMAS CHARTERS.

Captain Charters was born in New York City September 2, 1820, and died in Brooklyn, N. Y., June 6, 1910.

On December 1, 1862, he enlisted in Co. E, 74th New York Volunteers, and remained with the command until he was mustered out June 10, 1864.



During this time he participated in the battles of Fredericksburg, Gettysburg, Wapping Heights, Mine Run, North Anna, Cold Harbor and Spottsylvania Court House.

In May, 1875, the Medical Society, County of Kings, held its first meeting

in Everett Hall, 398 Fulton Street. Captain Charters had charge of these rooms. From here the Society moved to 356 Bridge Street on May 17, 1887, to Apollo Hall, 102 Court Street in September, 1898, and finally to 1313 Bedford Avenue in May, 1900. During all these years the Captain looked after the interests of the Society. In December, 1903, he retired, making a total of twenty-eight years in the service of the Medical Society, County of Kings. From 1886 to 1903 Estelle K. Provost performed the clerical work of the Society and was ably assisted by our old friend, the Captain.

This is the age of progress, but with all that we should not forget to say "thank you" to those who have assisted us in the past, or upon whom we depended in some degree for what comforts surrounded us, be that in our family relations or in our meetings with our fellow men.

The oldest members of the medical profession—that is, those connected with the Medical Society, County of Kings, know how much they depended upon what comfort they enjoyed at

the meetings, to the efficient and conscientious work of the late Captain Charters, ready at all times to co-operate with the Society in anything that would tend to better our surroundings and make the meetings more congenial for the work at hand.

One of Nature's noblemen, a gentleman of the old school, a smile on his face every time you called, and you never came too often. Who ever heard him say he was overworked?

He had but one object in view, and as he expressed it, it was to make the doctors feel at home, and in this particular he was successful, considering our limited surroundings, during his time, we must admit that his work was well done.

He has left behind him that feeling of respect for his just and upright character and his devotion to duty in private and public life which go to make up the true and honest man.

Another link that binds us to the past is gone, but the memory of him who was grand and old in the service will ever remain.

WILLIAM SCHROEDER, M.D.

## MEDICAL NEWS.

Edited by JAMES M. WINFIELD, M.D.

THE GROWTH OF THE ASSOCIATED PHYSICIANS OF LONG ISLAND.—At the meeting held June 25, 1910, forty-four new members were elected to membership. It is interesting to note that of these twenty-two were from Queens, Nassau and Suffolk Counties. We want every man in these counties.

BEQUESTS FOR BROOKLYN INSTITUTIONS.—The Methodist Episcopal Hospital and the Home for the Aged benefit by the terms of the will of Charles H. Armstrong, of Greenwich, Conn. Each institution will receive \$5,000.

COURSE IN OPTOMETRY.—Columbia University will give a course in optometry beginning this fall. The department will be a special branch of physics and will be conducted by the Professor of Physics and special lectures will be given.

BILLS VETOED BY THE GOVERNOR.—The Governor vetoed the bills providing for the reconstruction of the Long Island State Hospital, Brooklyn, and for expenditures for the Kings Park and the Central Islip State Hospitals. The bill for the Long Island State Hospital was vetoed because of the uncertainty of the title to the property.



**GOVERNMENT LABORATORY FOR THE STUDY OF CANCER.**—The United States Congress has appropriated \$50,000 for the establishment of laboratories for the study of diseases of fish, especially cancer. The stations are to be established under the supervision of the United States Fish Commission. Apropos of this, the Fish Commission has found that the trout in many of the Long Island streams, especially the Nissequag River, are suffering from cancer.

**MORE NEW HOSPITALS FOR LONG ISLAND.**—The Brooklyn Children's Aid Society are erecting a hospital to be managed in connection with the Seaside Home on Surf Avenue, Coney Island. The cost will be, approximately, \$100,000.

The promoters of the Beth Jacob Hospital and Dispensary announce that sufficient funds have been collected to enable them to begin building. The hospital will admit patients of all creeds, although it is to be conducted in accordance with Jewish dietary laws.

The Bayside Infirmary, a private hospital of twenty-five beds, will open some time this month. The hospital is to be under the direction of Dr. Harris A. Houghton.

**ANNUAL CONFERENCE OF AMERICAN HOSPITAL ASSOCIATION.**—The twelfth annual conference of the American Hospital Association was held at the Planters' Hotel, St. Louis, September 20, 21, 22 and 23. An extensive and interesting program was arranged for the meeting.

**HARBOR POLLUTION.**—The Metropolitan Sewage Commission has reported that the sewage which is being emptied into the harbor is creating conditions which are unsanitary and a menace to public health. Tidal studies carried on in connection with the United States Coast and Geodetic Survey show that the drainage which is discharged into the harbor is not flushed out to sea, but is assimilated by the water. The commission recommends that an interstate board be created by New York and New Jersey to

plan a system that will protect the harbor for all time to come.

**TO STOP SMOKE FROM AUTOS.**—The amendment to the sanitary code relating to smoking automobiles has become operative. Drivers and owners of autos that throw out smoke are liable to arrest and fine. Seventy men of the sanitary squad were on duty when the amendment went into effect to see that it was obeyed. A slight smoke is overlooked or passed with only a warning.

**MEDICAL SOCIETY OF THE STATE OF NEW YORK.**—On account of the death of Dr. Charles Jewett, President, in accordance with Section 2, Chapter VI of the By-Laws of the Medical Society of the State of New York,

"In the event of the President's death, ———, the Vice-President next in numerical order shall succeed him, and the other Vice-Presidents advanced in order,"

Dr. Charles Stover, of Amsterdam, now becomes President; Dr. Joseph W. Grosvenor, First Vice-President; Dr. Charles W. M. Brown, Second Vice-President.

The President, Dr. Stover, has appointed the following committee to draw up suitable resolutions on the death of Dr. Charles Jewett, late President of the Medical Society of the State of New York:

Drs. William F. Campbell, Chairman, Brooklyn; E. B. Cragin, New York; J. A. Sampson, Albany.

**HARVEY LECTURE PROGRAM.**—The Harvey Society elected the following officers for the year 1910-1911: President, Dr. Simon Flexner; vice-president, Dr. John Howland; treasurer, Dr. Edward K. Dunham; secretary, Dr. Haven Emerson; council, Drs. Graham Lusk, S. J. Meltzer and James Ewing. The following program for the next series of lectures has been arranged:

October 15.—Prof. Dr. H. Chiari of Strassburg, Germany, on "Die Bedeutung der pathologischen Autopsie und sonstiger pathologisch-anatomischen Untersuchungen."

November 12.—Prof. W. E. Castle of Harvard University, on "Unit Characters in Heredity."

December 10.—Prof. Harvey Cushing of Johns Hopkins University, on "Certain Clinical Aspects of Dyspituitarism."

January 14.—Prof. Arthur R. Cushman of the University of London.

February 4.—Dr. Thomas B. Osborne of the Connecticut Agricultural Experiment Station, New Haven, on "The Chemistry of the Proteins."

February 25.—Prof. Jacques Loeb of the Rockefeller Institute for Medical Research.

March 18.—Prof. H. Gideon Wells of the University of Chicago.

These lectures are open to the public and are given on Saturday evenings at the New York Academy of Medicine.

ACADEMY TO DISCUSS ANIMAL EXPERIMENTATION.—The New York Academy of Medicine has purchased property at 10 W. 44th street, and 15 W. 43d street, either for the purpose of remodeling the present building, or for the erection of a new building. The anniversary meeting of the academy will be held November 17th, and will be devoted to animal experimentation in medicine. Addresses will be delivered by Dr. William W. Keen, Philadelphia, on "The Influence of Antivivisection on the Character of its Advocates;" by Dr. William H. Welch, Baltimore, on "The Objections to Proposals of Further Legislation to Regulate Animal Experimentation;" by Dr. W. B. Cannon, Harvard Medical School, on "The Character of Antivivisection Literature."

AVOIDANCE OF ACCIDENTS.—The large number of street car accidents in New York City has led to the printing on the back of transfers the following warning: "Never leave a street car until it has come to a full stop. In this way you will do your share for the betterment of the service and the lessening of accidents. Most street-car accidents are due to the non-observance of this simple rule. May

we look for your co-operation in this regard?"

OSTEOPATHS AGAIN DEFEATED.—In the case of Dr. Charles F. Bandle who applied for a mandamus to compel the Board of Health to grant a burial permit on a death certificate presented by him, the Supreme Court has refused the mandamus. The decision was accompanied by the following memorandum:

While the state has wisely allowed the practice of osteopathy, it does not follow that it thereby holds out one, without any practice in surgery or experience in prescribing drugs, as fully qualified to certify the cause of death. Indeed it is not certain that a board of health would be compelled to take the certificate of death of all licensed physicians in the event of an epidemic or the spread of some new and mysterious disease.

Granted that the theoretical education of the osteopath is of a standard equal to that of a doctor of medicine, after he enters on his profession his practice is restricted, so that it does not appear that he can make the test by examination of blood and tissues by which alone many diseases can be certainly detected.

The sanitary code is discriminatory, but the discrimination is not personal and arbitrary. It is based on a limitation which the osteopath may be said to make for himself, and deprives him of no rights which he ought to exercise consistent with the public safety.

GERMAN HOSPITAL NEEDS MONEY.—The addition to the German Hospital of Brooklyn which was so urgently needed has been begun without provision having been made to defray the entire cost, so the board of trustees has appealed to the general public for funds with which to carry on the work.

CLINIC FOR ITALIAN CONSUMPTIVES.—The Board of Health maintains a clinic for Italian consumptives at 339 East 109th street. Although this clinic has been in existence for three years, the Italian public has not



been made aware of the fact to any extent, and a request has been made that the existence of this institution should be more widely published.

**PROPOSED COLONY FOR LEPERS.**—It is understood that the Board of Health intends establishing isolation quarters for lepers on North Brother Island. There are at present four men living in a small house on Blackwell's Island who are suffering from the disease in its last stages.

**PLAN FOR BETTER HEALTH WORK.**—Dr. Lederle has asked the Board of Estimate and Apportionment for a sum which is \$1,328,855 in excess of the allowance for this year. This request has brought to light the fact that there are in this city fewer inspectors than there were ten years ago and that there exist three times the number of contagious diseases. The largest increase asked for is \$486,056, in the division of hospitals, while the division of child hygiene has asked for an increase of \$320,545. This increase is asked so that every school in the city, including kindergartens, parochial schools, industrial schools and the school of correction may all be brought under the supervision of the health board. It is also planned to open winter headquarters corresponding to the recreation piers and summer vacation schools, where mothers will be taught the year round to care for their babies.

**WANT STRAUS MILK STATIONS.**—The New York Milk Committee has sent out a statement expressing regret at the announced intention of Nathan Straus to close his milk depots. The commissioner of health has also spoken very strongly on the subject. He says: "To see these milk stations shut down would be to witness a great public calamity."

**BATHTUB TRUST.**—Sixteen concerns manufacturing sanitary enameled ironware, and their officers, located in nine states, have been proceeded against by the Department of Justice, in a bill in equity filed against

them at Baltimore under the Sherman anti-trust law.

The defendants make up the so-called "Bathtub Trust," an alleged combination of manufacturers of sanitary enameled ironware organized to secure control of the wholesale and retail market of the country in their special line of products. The latter includes not only bathtubs, but drinking fountains, basins, sinks and practically all sanitary devices now demanded by the present day standards of sanitation and health. The sixteen manufacturers against whom the bill in equity is launched include the leading figures in the trade, four of whom have their headquarters or factories in New York.

**SPEAKS FOR NATIONAL HEALTH DEPARTMENT.**—One of our Honorary Members, Dr. Harvey W. Wiley, delivered an address to several thousand persons at Chautauqua, July 15th, where he spoke enthusiastically for a national health department and pointed out what it would do for the safeguarding of the public health.

**BAD AIR IN THE KINGS COUNTY COURT ROOM.**—The report of Dr. Graham Roper, medical inspector for the State Department of Labor, gives the following findings:

"The bacteriological determination showed 27 colonies of bacteria, and 5 molds in two liters of air aspirated through an aerobioscope. A careful isolation of the bacteria showed quite a number of pseudo-diphtheria bacilli, and Klebs-Loeffler (true diphtheria) bacilli. There were also found bacillus celi, tubercular bacilli and non-pathogenic (non-disease producing) cocci."

**LAWS AGAINST STREAM POLLUTION.**—Two legislatures having failed to strengthen the laws against pollution of public water, application has been made to the governor for executive action under existing laws as indicated in the official report of the state commissioner of health. It was found that legislators who privately favor the recent bill voted against it out of "courtesy" to associate legisla-

tors. Sanitarians are much aroused and declare that there is no valid reason for opposition to the bill and characterize the action of the legislature as "misrepresentative government."

**WOMEN WANT INTERNESHIPS.**—Dr. Maud Glasgow has initiated a movement to get women admitted as internes into the larger hospitals of New York. There are said to be only two smaller hospitals in Greater New York where women can be admitted as internes.

**BOY HYPNOTIST ARRESTED.**—A newspaper advertisement having made it known that "Prof. Hillman, hypnotist, 468 East 139th street, removed nervousness," Mrs. Frances Benzecry, an agent of the County Medical Society, visited him and told him that she was nervous, could not sleep, and had lost her appetite. He told her, she alleges, that he could cure her in six treatments, for which she was to pay \$10. She paid \$2 down and took a receipt.

She had the young man in the Morisania Court on the charge of practicing medicine without a license. The prisoner, who is only 20 years old, said he was Paul J. Heine, and that he had been a hypnotist with curative powers since he was a mere boy. He was held in \$500 bail.

**MILK DEALERS WILLING TO CO-OPERATE.**—The Board of Health has placed its ban on all pasteurized milk in bulk as food for infants unless it is boiled and Dr. Lederle has suggested that dealers and dairymen co-operate with the department in producing milk of definite grades suitable for young children. Dealers have expressed their willingness to do what they can and are considering plans which they will submit to the Board of Health. Of the 1,600,000 quarts of milk received daily in this city only about 2 per cent, is certified or guaranteed. The aim of the department is to get a sufficiently good quality of milk for babies at a reasonable price, such as is sold in many European cities.

**NORWEGIAN HOSPITAL ALUMNI.**—The annual outing of The Norwegian Hospital Alumni Association was held Wednesday August 10, 1910, at Glenwood, Long Island.

The trip was made in a large sight-seeing automobile. Luncheon and a bountiful shore dinner were served at Karatsonyi's Hotel. Well contested games of baseball and bowling between teams selected and captained by Drs. R. E. Coughlin and C. C. E. Lange were features of the day's sport. Baseball umpire, Dr. W. C. Schoenijahn.

**DR. JOHNSTON MACLEOD**, of 49 South Parsons Avenue, Flushing, has been appointed a coroner's physician of Queens. He takes the place of Coroner's Physician Walter G. Frey, of Hunters Point, who has been appointed surgeon in the New York City Fire Department at a salary of \$3,000 a year. A coroner's physician receives \$1,500 in Queens. Dr. MacLeod has practised about ten years in Flushing and is popular there.

**DR. LE ROY P. VAN WINKLE**, of Amityville, has been appointed to fill the vacancy as town health officer created by the death of Dr. Edwin Forrest Preston.

#### REMOVAL.

**DR. MILTON G. WASCH** announces the removal of his office to 1296 Bergen Street, Brooklyn.

#### MARRIED.

**DR. JOHN P. SCHNEBLE**, of Woodhaven, L. I., to Miss Ida Brandenstein, of Glendale, Brooklyn, June 15, 1910.

#### NECROLOGY.

Compiled by **WILLIAM SCHROEDER, SR., M.D.**, Chairman of the Historical Committee of the Associated Physicians of Long Island.

**FRANCIS H. STUART**—Brooklyn, died September 4, 1910.

**CHARLES ZELHOFER, M.D.**—Born in Brooklyn, N. Y., in 1851 and died in the same city, June 29, 1910.

Graduating with the degree of



M.D. from the University of the City of New York, in the class of 1873, he remained in this city during his professional life, during which time he was connected as physician to St. Catherine's, German, and E. D. Hospitals.

In 1874 he became a member of The Medical Society County of Kings, also a member of the American Medical Association, New York Physicians Mutual Aid Association and Clinton Lodge, No. 453, F. & A. M.

A widow, Emilie A., and a son and daughter survive him.

RICHARD H. STONE, M.D.—Born in Vermont in 1827, and died in Brooklyn, N. Y., July 27, 1910.

He was educated at Dartmouth College, receiving the degree of A.B. in 1860, and the degree of M.D. from the College of Physicians and Surgeons, New York, in 1866.

Was for a number of years physician to the Kings County Charity Commissioners, and practiced medicine in this city during his profession-

al life, a member of the Medical Society County of Kings from 1867 to 1900, and the New York Physicians Mutual Aid Association, a member of Commonwealth Lodge, No. 409, F. & A. M., and Plymouth Church.

His wife, Caroline M., died June 21, 1897, three daughters survive him, Mrs. Goodall, Mary M., and Lucy M. Stone.

SEYMOUR J. HOLLEY, M.D.—A retired physician, died August 7th, at his home, 298 Clifton place, Brooklyn.

He was born at Dorset, Vt., and after graduating from Burr Seminary, Manchester, Vt., studied medicine at the College of Physicians and Surgeons, New York, and served in the hospitals and on the field during the Civil War. He came to Brooklyn and for twelve years was health inspector on the Brooklyn Board of Health. Owing to his bad health he had not practiced for some years. He had lived in Brooklyn for the past twenty-five years.

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## TRANSACTIONS

### OF THE

## BROOKLYN SURGICAL SOCIETY

The President, J. R. KEVIN, in the Chair.

*Regular Meeting, May 5, 1910.*

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#### EXSTROPHY OF THE BLADDER.

DR. C. P. GILDERSLEEVE presented the following case:

The child was born April 15, 1910, the mother being 27 years old. There were two preceding children, the eldest three years old last February, the next one year old last December. Both were perfectly formed. The mother says that while she was pregnant with the last child she witnessed the circumcision of the younger boy but it made no impression on her.

The child presents a typical picture of exstrophy of the bladder. There is a congenital absence of the anterior wall, the posterior wall is seen, both ureters are visible with drops of urine exuding. The anterior abdominal wall is absent from the pubes to the umbilicus. The dorsal half of the penis is absent. Both testicles are present and normal. There is no separation of the pubis.

The mother has promised at some future time to bring the child for inspection.

**ACUTE MASTOIDITIS—SEPTIC  
MENINGITIS.**

DR. ROGER DURHAM reported the following case:

Patient aged 10. Past history, purulent discharge from both ears for about four months. Thirty-six hours before admission to the hospital, she began to have earache and profuse purulent discharge from the right ear. Eighteen hours after admission she had pain over the right mastoid, tenderness and rigidity of neck and some retraction of head, also severe frontal headache, increased on motion and some flexion of the legs.

Patient was a poorly nourished child, appeared acutely sick, temperature 103 degrees, pulse 115, respiration 28, head retracted and resisted flexion very markedly, expression anxious, pupils equal and reacting actively. Extremities, legs flexed on the thighs and thighs on the abdomen and muscles markedly rigid. Koernig's sign not absolute.

Operation was performed at once, the usual mastoid procedure. A moderate amount of pus was found and necrosis of the mastoid cells. The lateral sinus was exposed and at the upper angle of the wound the dura was exposed and on opening through to the dura, a purulent discharge of two to three drams of pus appeared. This was packed lightly and wet dressings were applied and the patient returned to bed. The temperature was 103 to 105.6 degrees for two days. The patient was worse for two days after the operation than before. The wound discharged moderately. The pupils were contracted and reacted very sluggishly, if at all. The neck was markedly rigid so patient could be lifted up and Koernig's sign was present.

The patient constantly cried and

complained of continual severe headache, and there was slight delirium. There was no vomiting at any time and the abdominal muscles were retracted and a tache cerebrale was present. Respiration was 26 to 40.

The outlook seemed hopeless, but on the fifth day there was marked improvement. The temperature dropped to normal, the pupils became increasingly active and reflexes appeared. The patient seemed brighter. At the end of a week the rigidity of the neck and extremities decreased markedly and the convalescence went on normally with the exception of a lobar-pneumonia which maintained the temperature for another week and recovery was complete at the end of the third week.

The patient was exhibited, and with the exception of a slight deafness which she seems to think is very moderate, her general health is excellent now.

**VESICAL FISTULA.**

The following case was reported by DR. ROGER DURHAM:

DR. DURHAM hoped to report this case as a cure, but since the notice of the case was sent in for the program, the patient has reported that he is not as well as was hoped.

Age 33 and emaciated. No history of tuberculosis in family. Past habits good and health always fair. Nine years before coming to Dr. Durham, he had an external urethrotomy for cystitis. At that time he had been losing weight and said the urine contained large quantities of pus. History was indefinite. The operation was followed by only slight improvement and one year later the left kidney was incised and drained by a tube but the kidney was not removed at



that time. The question of tuberculosis of the kidney did not come up. This drainage sinus did not heal and four years after the operation the right tuberculous kidney was removed. His general health was pretty fair for two years, but at the end of two years examination showed tuberculosis of the right testicle and this was removed. At this time he had no fistula. But he had had for some reason infection of his perineum which was poulticed and following that there was a discharge through this old perineal wound which remained open during the following two years. He came to the hospital for relief from the vesical fistula. The urine at all times drains through the perineum and the patient is constantly uncomfortable with wet clothing. His general condition was good. There was no loss of weight, no cough nor sweats.

*Examination.*—A spare young man, some evidences of premature ageing, he had gray hair and arteries somewhat thickened. There was slight dullness and increased voice over right apex of lung. There were no rales to be heard. There was a lumbar scar over the left kidney region and a scar of the scrotum showing the absence of one testicle. A fistulous opening was present about the mid-perineum allowing the entrance of a probe into the bladder. This fistulous tract opened into the urethra and the urine would collect back of it. About two to three drams of urine would collect and could be expressed by pressure. Sounds to 24 French passed readily, but could not be rotated in the bladder and passage caused bleeding.

Under ether, cystoscopic examination was attempted. However, all

that the bladder could be distended to was less than two ounces. This was its total capacity under all the pressure which seemed wise, and absolutely nothing could be seen. The bleeding caused was rather free. The urine was of specific gravity of 1010 to 1015 and had pus and red blood cells. Tests for tubercle bacilli were negative. Injection guinea pig negative.

Local treatment consisted of daily irrigations of boric acid and every second day bichloride of mercury 1 in 60,000 and occasionally argyrol, and after four weeks the urine was much clearer and operation was attempted. Von Pirquet test was positive. A two inch transverse incision was made in the perineum crossing the fistulous opening. The wall of the urethra was very much sacculated and an opening was made in the midline antero-posteriorly and inspection was thus allowed but nothing suggesting tuberculosis was found there. A number 20 catheter was now inserted through urethra for continuous drainage and the urethra opening was closed over the catheter, first a single layer of interrupted sutures and the two flaps were folded over and fastened by mattress sutures. He was returned to bed and a close watch kept upon the urine and for ten days there was no leakage. There was some suppuration of the skin and a little sloughing but on the tenth day the urine began to leak through the perineum and the catheter was removed. The urine for a time discharged through the perineum. Five weeks later the fistulous opening was treated in the same manner as at first with the exception that there was more tissue to work on. Two days after the operation it leaked again. The catheter

ter was left in two days and at the end of two weeks the opening had healed so there was no leakage when he left the hospital which was six weeks ago. He was heard from at the end of three weeks and there was no leakage.

#### UMBILICAL HERNIA—SARCOMA OF OMENTUM.

The following case was described by DR. ROGER DURHAM:

Woman, 66 years old, whose past history contained nothing except an umbilical hernia which she had had all her life and for which she had worn an elastic support. Twenty years before she had had the menopause but was never free from a bloody discharge for more than a month at a time. At times it was very profuse but controlled readily by bed treatment and the use of ergot. She was never examined until two weeks before this time.

*Present history.*—Eight or more months ago first noticed a lump in the abdominal wall in the region of the umbilical hernia. It rapidly increased in size, and, as time went on, became painful and one side became inflamed. She lost thirty-five pounds in weight and failed in strength. The hernial mass was the size of a cocoa-nut in the region of the umbilicus to the right of it with the skin covering. The ring of the sac was in the midline two inches in diameter. To the left of it is a mass, irregular, tender in places, with two areas of fluctuation on the surface, the skin over one sloughing and a slight foul discharge leaking through the surface. Dr. J. B. Bogart saw this patient with Dr. Durham and opened the sac widely and expressed some dark broken down clot and slough and there was a foul discharge. This was treated for ten days and it gradually healed. A section was taken from

the mass, from the edge of the broken down area and Dr. Moore made an examination and found nothing but inflammatory tissue. The section was not taken from the growth, it was taken from the edge of the fluctuating area. When this soft spot had healed over, an operation was recommended. She was examined vaginally and a cauliflower-like mass suggesting cancer was found. She at no time had a foul discharge although she had had a very bloody discharge which she showed Dr. Durham and which seemed to be pure blood. This mass on the cervix had all the appearance of a cancer of the cervix. The cervix and uterus were freely movable.

She came to the hospital and an incision was made encircling the mass down to the ring and through which ring the omentum and intestines protruded in several sacculations and to which they were held by adhesions. This was separated with difficulty and was held by a small attachment one and one-half to one inch to the mid-transverse colon. When it came to a question of leaving the intestines, it was decided not wise as over one-third of the transverse colon was involved in the growth and it was decided wise to go ahead although the woman's condition was critical. The family had previously agreed that everything should be done which was possible in that line. Where the mass was adherent, the wall of the transverse colon was found involved to the extent of one-third of its lumen and about six inches of the transverse colon was excised for the reason that complete occlusion of the gut was imminent. A lateral anastomosis of the transverse colon was done, the hernia was closed by lateral overlapping of the tissue and closing of the skin flap from



above downward. The patient's condition became very serious and she only lived six hours after the operation. The pathological findings of this section are called by Dr. Dexter malignant adenoma probably secondary to growth somewhere else, possibly secondary to the growth in the cervix. The uterus felt through the abdominal wall was freely movable and the mass was felt only in the cervix. It was thought that if she should survive the first operation, it would be very easy to remove the uterus and cervix.

DR. J. B. BOGART, in discussing the case, said:

The principal lesson to be learned from this case which I had the pleasure of seeing with Dr. Durham before operation and in which we made an attempt to relieve the patient, is that all cases of umbilical hernia should be operated on early. We should not wait until adult life, especially in female children. It is all very well to put a little pad over the umbilicus in those cases where the hernia is manifested at birth and in some cases this will cure although my own impression is that not very many are really cured. If not cured, after a year or two, they should be submitted to operation. The operation is a very slight one if undertaken at that time and the results are eminently satisfactory and then we shall avoid having such cases as this come to us later in life when complications have arisen and the operation a desperate one. It might appear to those who did not see this case that we were over-confident in attacking it, but, the tumor was movable and the patient would have died if nothing had been done. After starting it was not possible to do anything but go ahead. We did not anticipate the trouble with the intestine.

#### DUODENAL ULCER.

Dr. GEORGE L. BUIST reported the following case:

C. N., male, 25 years of age. Dr. Buist stated that he would not take the time of the Society to go into the details of this case. The history goes back one and a half years and is typical of duodenal ulcer. At that time careful hospital, medical treatment resulted only in temporary relief. For some six months or more prior to the time that he was seen by him, the patient was unable to work and was not relieved by medicinal treatment. He was almost begging for operation when referred to him. The indications in his individual case undoubtedly pointed to the advisability of offering probable relief by surgical intervention. Pain came on usually an hour or more after meals. Radiated across abdomen from right to left and lasted a few hours; there was anorexia; vomiting about an hour after meals, often undigested particles of food; no blood noted in the stools.

*Examination.*—Decided tenderness with maximum point about two inches to the right and above the umbilicus. No mass palpable. The local findings at operation, and the result as evidenced at the present time seems to have justified the given procedure. At the last meeting of this Society, Dr. Brinsmade suggested the possibility of syphilis being a causal factor in some of these cases. This patient has two kidney shaped scars on each tibia which suggested that possible etiological factor. The Wasserman reaction proved, however, to be negative. He gives no history of syphilis.

Occult blood was found in the stools. No gastric analysis was made. The patient was operated on April 16, 1910. His improvement has been marked. Operation was the suture

operation commonly used at the present time, facilitated by the use of the three-bladed stasis clamp, protected by rubber tubings on the blades. The anastomosis was made between the posterior wall of the stomach and the jejunum, about three inches distal to the ligament of Treitz.

*Findings at Operation.*—A mass at and beyond the pylorus about the size of a small hen's egg, hard and bound down by adhesions to the liver. One could not on account of the thickening bring the forefinger and thumb together through the pylorus.

#### BLASTOMYCOSIS.

DR. GEORGE L. BUIST reported the following case:

Blastomycosis is histologically an inflammatory granuloma caused by yeast fungi which are vegetable micro-organisms. The chief point of interest in this case centers upon the importance of our being cautious in considering cases of malignancy cured without placing a question mark after the reported pathological findings. The section of the tumor from this case was reported as a round-celled sarcoma by one of our leading pathologists.

At operation the area of infiltration of the surrounding tissues was such as to preclude any reasonable possibility of doing a radical operation. In other words, it was felt that if the condition was one of malignancy there would be a great deal of malignant tissue not removed and recurrence would inevitably follow.

Now, if Coley's fluid or radium, or some other line of treatment had been instituted on the basis of the pathological report of malignancy one might have been fairly justified from the subsequent clinical course of the case in considering it as a probable

cure of sarcoma. For this reason it seems that a brief report of the case might be profitable.

It is not presented with the idea of discrediting pathological work, but on the contrary, shows how by pathological examination, we were able to make what would seem to be a correct diagnosis of the case in keeping with the clinical picture.

Of course, the question may also be raised as to whether the diagnosis of blastomycosis is correct. The case is presented on its merits for consideration.

Patient, male, 36 years of age, engineer, married. Family history negative.

*Previous History.*—Nine years ago says he had a soft chancre showing tendency to spread, cured in a few weeks, no mercury or iodide used. No secondary symptoms noted. Always well until eleven months ago. Then had an acute attack of abdominal pain, fell to the floor when attack came on. Pain was colicky. Patient vomited, and had tenderness in right lower part of abdomen. Was in bed two weeks, diagnosis appendicitis.

Nine months ago says he had erysipelas back of the right ear, also discharge from the ear.

*Present History.*—Six months ago or five months after the so-called attack of appendicitis, noted intermittent dull pain above the navel. No stomach symptoms, bowels regular. No vomiting of blood, no nausea at any time. As the soreness increased patient noted a lump above the navel about the size of a walnut, pain apparently relieved by pressure. At times the mass was not tender, no loss of weight.

*Examination.*—Patient muscular



and moderately thin. Abdomen: mass about the size of a walnut half an inch to the left of median line and two inches above the navel. On inspection and on palpation, mass pulsates. Distinct bruit heard above and below the mass. Aneurism suspected and so diagnosed. Careful anti-syphilitic mixed treatment used for two months. No apparent effect on size of tumor. No Wasserman taken. Finally it was noted that the tumor could be lifted with the abdominal wall without any pulsation taking place in the mass. Aneurism diagnosis was set aside and operation advised.

*Operation.*—Posterior to the sheath of the rectus and infiltrating it, down to and including the peritoneum was the tumor. No capsule. Mass apparently infiltrating muscle was removed. Peritoneum opened. Infiltration and adhesions extending down to and including the outer wall of the stomach at the greater curvature, some three inches from the pylorus. Nothing further done, abdomen closed. Healing satisfactory.

*Pathological Report.*—Round-celled sarcoma. Probable malignancy was reported to the family. The patient gave up his position as engineer, sold his house and went to Texas to die. He read a book on "Fasting, Vitality and Nutrition." He decided upon fasting and did not touch any food for thirty-five days. Then he began to eat gradually, increased his diet and gained rapidly in weight and strength, returning in nine months to this city, confident that he had cured himself of cancer by starvation treatment. This did not fit in very well with our way of looking at it from the standpoint of the diagnosis of sarcoma.

Half of the tumor that had been preserved was now sent to Dr. Charles J. Bartlett, Professor of Pathology in the Yale Medical School. The history of the case up to the time of operation only was given to him without our own pathological findings and without the subsequent clinical history of the patient's sojourn in Texas.

Dr. Bartlett wrote as follows: "My diagnosis is that it is not a malignant growth, that it is granulomatous. In places it is quite suggestive of a syphilitic lesion, but I do not think this is the correct explanation. It shows considerable round-celled infiltration around the small blood vessels, groups of cells, which are probably connective tissue in nature between the dense fibrous parts of the tissue and a small group of these on what I take to be the peritoneal surface. Nothing indicates that these cells are dividing rapidly. None of the appearances are particularly suggestive of tuberculosis nor did sections stained for tubercle bacilli show them present. On the other hand, the entire picture reminded me of one that I saw three years ago from a tumorlike mass of the male breast, extending down to the lung from which I cultivated a yeast and demonstrated it in the tissue microscopically. The peculiar character of the structure made me consider it a case of blastomycosis, not simply an infection of a tumor with a yeast. I think that your case belongs in the same category. It is a granulomatous process due to infection with blastomycetes. Sections stained by the Gram-Weigert method show what I consider to be yeasts in the tissue in very small numbers.

"The case is an interesting one and

it seems to me that the explanation is quite probably correct regarding the onset of the trouble and that the infection came from the gastro-intestinal tract. We know something about generalized blastomycosis from cases reported chiefly by the Chicago men, but we do not know the extent to which the localized processes may disappear by spontaneous recovery."

Before receiving Dr. Bartlett's report, Dr. Buist had come to the conclusion that the case was not clinically malignant, and that the probable facts were that the patient had had a perforating gastric ulcer eleven months previously, with a peritonitis and some low grade infection into the abdominal wall.

In conclusion the reporter of this case said that he did not wish it to be inferred that he was belittling the importance and helpfulness of our pathological work. It might be truly said of the microscope as was recently said by one of our prominent surgeons

of the X-ray; namely, that the X-ray never lies, but that we too frequently misinterpret its findings. The patient to-day is well and strong and attending to his duties as engineer on a steamer.

#### TUBERCULAR PERITONITIS.

Dr. CHARLES H. GOODRICH reported the following case:

This case was operated on twelve weeks ago for tubercular peritonitis. She was an emaciated, frail child of ten, with distended ascitic abdomen. She has made an uneventful recovery since the abdomen was opened, serum evacuated, appendix removed and wound closed without drainage. She has gained in weight and color. Her general health is excellent. It is an example of that type of tremendously ascitic cases, which usually do well. At present the abdomen is a little distended and a moderate amount of serous exudate is present.

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### ANNOUNCEMENT OF THE OCTOBER MEETING.

#### ASSOCIATED PHYSICIANS OF LONG ISLAND.

##### *Scientific Session.*

1. THE FLY AS A CARRIER OF INFECTION. Illustrated by motion pictures and lantern slides showing the fly in all stages of its development and life history. By Dr. H. D. Pease, of Manhattan.
2. PRACTICAL MEASURES FOR THE ERADICATION OF THE COMMON HOUSE FLY. By Dr. Frank Overton, Patchogue.

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### ANNOUNCEMENT OF THE OCTOBER MEETING.

#### KINGS COUNTY MEDICAL SOCIETY.

1. SOME CONSIDERATIONS IN THE SURGERY OF THE STOMACH AND DUODENUM. By William J. Mayo, M.D., of Rochester, Minn.
2. THE SERUM DIAGNOSIS OF SYPHILIS. By Hideyo Noguchi, M.D., of Manhattan, N. Y.

The President of the Medical Society of the County of Kings wishes to announce that all the members of the Associated Physicians of Long Island will be welcome at this meeting. It is an exceptional opportunity to meet two of the most active workers of our profession in this country.



## BOOK REVIEWS.

### **New Edition of Gray's Anatomy.**

—A man may be a great anatomist or a great teacher, but when one man combines these two faculties his single mind, by its complete co-operation, can produce a teaching book in which matter and method blend into a result obtainable in no other way. This double-sided genius was possessed by Henry Gray, and until Nature grants to one individual like endowments, his work will stand. Owing to the incessant activity in all branches of medicine, books in any of its departments are almost invariably short-lived. The single exception to this rule is Gray's Anatomy. In the fifty years since the author's early death it has grown beyond even the leadership in its own subject, and has become the foremost medical book in all English literature. As English is now the world language, this is equivalent to primacy in the medical literature of the world.

Eighteen editions have been demanded in the course of its half century, and they have enlisted many of the ablest anatomists of this period. The principles on which Gray built his book have been followed, and it is not too much to say that during two generations it has guided the teaching of its subject in America as well as England. An army of students has conned its pages, and has carried it away into practice, for it is equally valuable to the physician and surgeon for reference on underlying points. In fact, the editor has made the applications of anatomy, in medicine as well as surgery, a special feature.

Of all the editions, this new one represents the most thorough revision. Every line has been scanned for possible improvement. Anything in the nature of a possible obscurity has been clarified, passages have been rewritten, and new developments have been incorporated. Rearrangement has eliminated many duplications, and this, together with condensation in style, has rendered

it possible to present more information in one hundred pages less space to the reader's obvious advantage. Professor Spitzka, the editor, is one of the foremost anatomists in the world, and he joins to this the apt qualification of being himself an artist as well, so that the drawings from his own hand present his knowledge directly to the mind of the reader. Another of Gray's fundamental improvements, in which his book has always been unique, was the engraving of the names of the parts directly on them, so that the student learned at once not only their nomenclature, but also their position, extent and relations, the four cardinal points. The advantage of this graphic method over the elsewhere customary lines and reference letters is obvious. Gray's book was also the first to contain illustrations in colors. In this new edition, besides all the improvements in the text, the splendid series of characteristic illustrations has been equally revised, many cuts being replaced and more added, and the use of colors is more lavish than ever. No student in any profession, or in any branch of medicine, has offered to him any instrument of instruction comparable to Gray's Anatomy. It suffices to say that the new edition will excel any of its predecessors.

### **The Test Diet in Intestinal Disease.**

By Prof. ADOLF SCHMIDT  
An Authorized Translation from  
the Second Enlarged and Revised  
German Edition by CHAS. D.  
AARON, M.D. Published by F. A.  
Davis & Co.

The publications of Schmidt and Strassburger have been generally looked upon by those most familiar with the subject of stool analysis as distinctly the most practical and reliable. Their "*Fæces des Menschen*" is a classic. The appearance a few years ago of Schmidt's work on the testing of the intestinal functions by means of a stipulated

diet, awakened a wide interest in this country as well as abroad. His methods of practical examination of the stools have with many become more or less routine. In the revised and enlarged edition many changes of considerable importance were made and we are exceedingly fortunate to have presented such an excellent translation. It is not alone for the specialist that this little book is valuable, for so simple are the methods of study suggested

that after a certain amount of experience any one with even the most meagre laboratory equipment can make observations on stools which would be of great clinical value. It must be urged, however, that the feces resulting from the ingestion of the "test diet" by those with normal digestion must be studied for some time before deductions can be drawn in abnormal cases.

DUDLEY ROBERTS, M.D.

### BOOKS RECEIVED.

#### ANATOMY DESCRIPTIVE AND APPLIED.

By HENRY GRAY, F.R.S. Eighteenth edition. Thoroughly revised and re-edited by EDWARD ANTHONY SPITZKA, M.D., Professor of General Anatomy in the Jefferson Medical College, Philadelphia. Illustrated with 1,208 engravings. Lea & Febiger, Philadelphia and New York.

#### THE SURGERY OF CHILDHOOD, INCLUDING ORTHOPAEDIC SURGERY.

By DE FOREST WILLARD, A.M., M.D., Professor of Orthopaedic Surgery University of Pennsylvania, with 712 illustrations, including 17 in colors. J. B. Lippincott Company, Philadelphia and London.

#### LIPPINCOTT'S NEW MEDICAL DICTIONARY.

Edited by HENRY W. GATTELL. J. B. Lippincott Company, Philadelphia and London.

LIGHT THERAPEUTICS. By J. H. KELLOGG, M.D. The Good Health Publishing Company, Battle Creek, Mich.

#### REFRACTION AND MOTILITY OF THE

EYE. By ELLICE M. ALGER, M.D., Adjunct Professor of Ophthalmology at the New York Post-graduate. F. A. Davis Company, Philadelphia.

#### HAND-BOOK OF ELECTRO-THERAPEUTICS.

By WILLIAM JAMES DUGAN, M.D., Lecturer on Electro-Therapeutics at Jefferson Medical College, Philadelphia. F. A. Davis Company, Philadelphia.

#### ESSENTIALS OF LABORATORY DIAGNOSIS.

Designed for students and practitioners. By FRANCIS ASHLEY FAUGHT, M.D., Director of the Laboratory of the Department of Clinical Medicine, and Assistant to the Professor of Clinical Medicine, Medico-Chirurgical College, Philadelphia, Pa., etc. Second edition, revised and enlarged. Fully illustrated with Indian scale in colors, eight full-page plates and numerous engravings in the text. Crown octavo, 336 pp. Flexible cloth, rounded corners, \$2.00, net. F. A. Davis Company, Philadelphia.



# LONG ISLAND MEDICAL JOURNAL

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## THE ISLE OF PINES AS A HIBERNACULUM

March, 1910

By WILLIAM BROWNING, M.D.

THE inability this winter to find any recent or exact information regarding this locality leads me to think that even scrappy notes thereon may be worth giving. It is in its features as a hygienic and recuperative resort that I have chief interest.

It is an axiom that one climate is best suited for one person or purpose, while a different one best meets other requirements. You may seek a moist or a dry air, a rarefied atmosphere or the opposite, sunshine or shadow, special freedom from dust and bugs, or the stimulus of one like that at Natural Bridge where the days are often very warm and the nights decidedly cold, or any combination of climatic factors. Even the diet may vary with the region; in the tropics there is less consumption of meat and more of fruits; at Long Key fresh fish dominates every meal; in parts of Europe you can take a grape-cure treatment; in some places the drinking water is medicinal, etc.

Hence to call attention to the peculiar and great merits of any certain region is not presuming that it is best for everybody or even continually good for any one. It is now claimed that we may have too much sunshine, although the opposite is far oftener

the case. A climate must be selected for the individual.

The average health resort, however, is boomed either by certain abstract considerations of climate, or else on the basis of artificial pastimes. Yet no real improvement of health is assured by either of these agencies. Any one who has sought the rest change rejuvenation and gentle titillation of travel, or followed the course at resorts, knows that there are many factors of living that play a well-nigh master role. And a place originally ideal may lose its virtue when the exploiter, the mammoth-hotel chap, the wealthy youth, or other sap-sucker gains a habitat.

Therefore the quest for new, novel and favorable places will ever be in order. It is to these varied factors, rather than any close analysis of hygienic and climatic conditions, that attention is here directed. You may find reports on temperature, moisture, sunshine, etc., but little on some of these ordinary practical points.

Let me first speak of various matters relating to the island and its living features.

### TOPOGRAPHY AND GEOLOGY.

The wild southern portion is a coral limestone, with only scant earth and

the covering of trees. It is uncultivable and described as lowland or marshy, with a couple of unimportant fishing settlements.

While limestone of like nature and even marble occurs on the northern plains and mountains, I saw abundance of quartz and mixed pebbles; and the mountains are said to be partly granitiferous.

Florida. This may be inconvenient for horticulturist or cultivator, but it bespeaks a pure atmosphere.

The island can hardly be called specially beautiful, though much more so than Florida, as well as attractive and interesting,—“this paradisaical place,” as Finlay called it.

It is not reputed in the earthquake zone.



MOUNTAIN AND RIVER SCENE NEAR NUEVA GERONA.

Some mountain ranges, more extensive plains of mildly rolling character, termed in part “a coralline plain,” and slight depressions for the streams make up the topography. There are a couple of short series of mountains, ranging up to 1,600 feet in height at the maximum, though commonly called 2,000 feet. As they start abruptly and project so sharply against the flat landscape, they impress one as far loftier.

The soil has to be fertilized everywhere and for all products, even the citrus fruits. The same holds for

#### BIRDS (FAUNA).

The largest native animal is about the size of a squirrel.

Regarding the birds I can say little beyond the fact that there are 120 species, some of them new to science. (*Amer. Naturalist*, 1905, Vol. 39, pp. 179-215.)

Buzzards, gulls, paroquets, robins, blackbirds, a so-called “rain bird,” something like wrens, a very inquisitive ground-runner, crows, and many strange specimens including the mocking bird.

Good numbers of duck, quail, and wild pigeons are claimed,



In the breeding season some watch is kept to prevent the carrying off of paroquets; but one was on the boat with us back to Cuba, and it was said that frequently one was taken along by travelers and no objection made.

#### INSECTS AND PESTS.

Despite its location in the tropics the island is surprisingly free from these undesirables.

The common house fly occurs, as elsewhere, if filth, manure and decaying material is allowed. Nothing unusual about this.

The mosquito only becomes troublesome on the advent of the rainy season, say from the middle of April until into August, and even then not worse than summers on Long Island. I heard but one and that was in shrubbery down by a stream. Houses appear to be provided with screens if needed, at least the better American hotels. Any way, the visitor does not have to reckon with them in winter nor early spring.

Small, annoying gnats or flies can, however, be found at night along the larger streams and corresponding lowlands.

Jiggers and forms strange to us here seem to be absent.

There are positively no poisonous snakes or insects or dangerous wild animals on the island.

#### FLORA.

For the botanist, herbalist or gatherer of wild flowers a great variety of novelties are always at hand.

There are no dense forests at the north. The common wood over the plains, *i. e.*, the cultivable regions, consists of scattered palms, pines, cedars and dwarf palmettoes. Much shrubbery along the streams, dense

cane-brakes on the few marginal marshes and mahogany in special places.

The southern portion of the island bears splendid hard woods, and a company is proposing to exploit them commercially.

What may be the nature of the growth on the little visited mountains I am unable to state. They appear to be well covered with sizeable wood, but prove bare in spots.

Simply by the necessary foresight and care all the common vegetables and small fruits can be had fresh for the table all winter. Delicious melons, tomatoes, peas, beans and tubers were enjoyed.

To describe the pineapple, citrus, or other field products is, of course, quite outside the purpose of this writing.

#### DRINKING WATER AND MINERAL SPRINGS.

There appears to be an ample supply of pure water all over the island, and it is so claimed.

Over the inhabited area the wells are mostly from twelve to eighteen feet deep. There is an ice-plant and the hostleries are duly provided, if they take the trouble.

The McKinley Inn and the Santa Fé Hotel each has a windmill and supplies pipe-water. Bath rooms and closets mostly in annexes.

There are several recognized mineral springs about Santa Fé. A magnesia spring and an iron spring are neither so overwhelmingly impregnated as to be unpalatable. There is also a sulphur spring. These are claimed to be specific for rheumatism. A short distance back from the village is a much vaunted hot spring of unspecified composition; hereto the late Governor Weyler resorted

when in need of a straightening-up; the popular comment was that it softened and removed most marvelously all scaly and skin eruptions; it is used as a bath.

In former days a considerable hostelry at Santa Fé accommodated the guests who sought these springs, and mention of them may be found in our older cyclopædias.

There are also mineral springs at San Rosario and elsewhere on the island, but Santa Fé is the center par

sures it from being overrun commercially. Nassau is much smaller and not too conveniently situated, yet has long enjoyed a large clientele. Sometimes we seek a place where diversion, excitement and bustle is less in evidence. However, there is enough even here.

Pony riding may be mentioned, and is in the highest favor.

Any one with tastes of a naturalist can certainly put in time most enjoyably and profitably.



BOTTLE PALMS AND ONE OF THE NEW ROADS.

excellence so far for this phase. If these springs were better guarded and managed and real medical indications established, they would constitute a most valuable addition.

If these waters could purify the old reprobrates there is a new opening for the dermatologist.

#### PASTIMES.

What is there to do, every one asks?

That it is comparatively a small corner of the earth and just to one side of any line of through-travel in-

Walks and paths run here and there, and sufficient mountain climbing if you desire it.

A baseball game Sunday afternoon seemed to draw goodly numbers from all over the island. Autos, buggies, and footers were making in that direction from everywhere.

The possibility of an occasional cock-fight was mentioned, and serves to extend the sporting repertoire. The "goods" are certainly there for that purpose.

Wild game birds are reported as abundant, but people seem to find



plenty besides to occupy their energies.

Fishing is always an uncertainty—except in story. But in the bays and estuaries and larger streams the fishing is claimed by all the younger element to be superb. I saw a fine mess coming from one little boat. If you can believe even a fraction of casual tales, there must be an ample variety and number of finny specimens just waiting for a bait. These are mostly in the salt and brackish waters. In all deeper southern waters sharks abound, and these are seen up the island rivers on occasion. "Gaitors" were once indigenous but are no longer a commodity. Along any dock you can see plenty of smaller fish playing about.

Of course, many of the plantations are some distance from the best fishing resorts. I did not learn what special tackle was best for the local catch. Small boats can be hired at some of the hamlets, and even natives to propel them.

Sponge-fishery is a business in the nearby seas. The various estuaries and adjacent waters would be very inviting to a party with a launch.

#### LOCAL TRANSIT.

*Roads.*—A few government roads on the island are macadamized and the equal of the best anywhere. They rarely show much grade, and of course are admirable for autoing. From these there are branches of all degrees of excellence, some at least fairly good, that extend out to the inhabited parts.

In addition there are innumerable trails for the rider or walker, and regarding the pleasures of investigating which the young ladies were specially enthusiastic.

*Autos.*—There are some fifteen on the island, ranging from the simple runabout up to the seeing-the-island car (apply to L. G. Bell). We had over fifty miles in a very pleasant autobus. Two of the larger vehicles are now running on schedule between Santa Fé and its six-mile distant landing, or it and Nueva Gerona (17 miles), or between the latter and the 12-mile distant McKinley region. The run to Los Indios is "one of the finest."

Gasoline costs 41 cents a gallon. To get there with an auto you can take an excellent road across Cuba from Havana to Batabano.

Other vehicles are less promising, though many light runabouts are used.

The native ponies are fine for riding and following trails and many stretches of woods are open enough to ride through. Horseback is the inhabitant's favorite means of transportation, and riders can be seen everywhere. Ponies cost about \$75 to \$100 apiece. None are on hire as yet, but one of the hotels promises to have them by another season.

*Railroad.*—Work is promised this fall towards a steam or trolley road to connect western portions of the island and make for one of the harbors—may be less certain than the imaginary picture of it that has since appeared.

#### ACCESS, GETTING THERE AND BACK.

The only direct way is via Havana. From New York the Ward Line. This takes in all between four and five days. The total cost each way is about \$50 (by getting round trip rates). Or you can take boat from Key West, New Orleans or Mexico to Havana. Some times it can be made by way of Jamaica without

touching at Havana, or by a slow craft from Mobile.

If you take rail between New York and Knight's Key, and boat from that Key to Havana, it is but three days to the Pines or back.

In either case there is included a two hours rail ride from Havana to Batabano on the south side of Cuba, and a night boat from there to the Pines (some 90 miles from Havana in a straight line), arriving at 5 or 8 A. M., according to which port you debark. The steamer over sometimes donates its patrons a little touch of ocean swell. It is, however, a very clean trim little craft, gives a good fifty-cent supper, and has excellent staterooms and a most inviting deck for a pleasant moonlight smoke.

#### LAND HOLDINGS.

Although the area of the Isle of Pines (747,200 acres) amounts to nearly as much as that of Long Island (873,591), it is possibly less impressive because of its form, its less extent in any one direction, and its shorter shore-line. With accessory Keys it doubtless fully equals Long Island.

The Isle is irregularly circular in shape, and some 35 to 50 miles across in its longest diameters.

It is claimed that 95 to 97 per cent. of the total area of the island is now held by Americans.

The Isle of Pines Land Company took up "about one-sixth of the entire island." Of their 175,000 acres considerable portions have been disposed of to private holders and subsidiary companies. This company's land lies largely in the northwest of the island though part is on the south coast.

The Whitney Land Company in the mid-west took up another 20,000 acres. And Mr. Whitney stated they had disposed of 5,000 of this.

There is also the Columbia Land Company in the eastern part, and other considerable holdings.

The effort by these concerns has been largely to sell to individual purchasers in ten and twenty acre parcels, for the purpose of encouraging "intensive cultivation" and thus securing a large and thrifty population and in turn a support for export and other facilities. One result will inevitably be that in time titles will scatter and become as mixed as on Long Island.

Land costs from \$20 an acre up, say \$40 to \$50 for medium quality, or at West McKinley \$60 and for special plots higher. The average cost of clearing is \$25 an acre. Land companies lift prices, although also the main leaders in improvements and public works. Fortunately it is of scant concern to the traveler.

#### INHABITANTS.

There are some 250 American families on the island, besides workers and floaters, a claimed total of 1,500 Americans. One physician from the states, a Dr. Morin at McKinley, and others have holdings or may at times be available. (Two Long Island confreres went over with us.) Many of these inhabitants remain all summer, and with asserted comfort. They come from all over the northern states, many even from the northwest, but New York and New England are fairly represented.

The original Indians are entirely gone from the island.

Two distinct races, however, are found there by our countrymen. One



is the negro, partly native and partly a rather less desirable contingent from elsewhere in the West Indies. They have not interbred much with other races and represent the less efficient class devoid of power to rise.

The original white settlers were in large part Spanish convicts, mostly political. As is well known, such persons represent the highest type of their race. At any rate their descendants on the island prove far better neighbors than the average Cuban, and are well spoken of. This Spanish constituency has whatever enterprise there is among the natives. The various Cuban rebellions had little following at the Pines.

While language and training tend to keep native and American apart, their relations are touched with respect and courtesy. And the officials sent over from Cuba have been agreeable and very satisfactory. Very little policing is required; all classes of inhabitants seem law-abiding and are surprisingly free from the pilfering tendencies that so often annoy.

Nueva Gerona is the largest town, though a diminutive metropolis. Inevitably a new modern and wholly American town is bound to be developed at some harbor toward the northwest part of the island.

Casually it may be remarked that this is one of the most interesting experiments in migration and settlement that is going on parallel with the construction of the Panama Canal. It is the most promising of our colonies in the American tropics. The many attempts heretofore have proven more or less abortive. The American colonies in western Cuba are on no such scale; nor do the neighboring Jamaica or our own Porto Rico prove much.

An immense amount of energy, ability and resources are being devoted to the realization of the Pines project; on it hinges much of our future in the far south. Surely an American cannot look at it with indifferent eyes. For the time this phase transcends in interest its business and even health aspects.

#### BUILDINGS.

Except a couple of hotels, the small tower of a government office at Gerona, and a scattered house or two, all buildings are of one story only. These are largely whitewashed and roofed with red tile, thus giving a typical though primitive aspect novel at least to the northerner. Some American houses on plantations make more claim to pretense, though as yet simplicity everywhere prevails.

There are some small Protestant chapels, none of them very creditable. The recently renovated little Catholic church at Santa Fé is architecturally a gem as seen from the outside.

The bank and chief business houses are at Nueva Gerona. Of course American goods and the few island products constitute the stocks. Here the boat lands right at the town, and besides it is nearest the McKinley enterprises. The few stores are not very impressive, but they carry a surprising variety of desirable goods, and anything lacking can be quickly obtained from Havana.

#### AMERICAN HOTELS.

There are several comfortable and well-run American inns, not counting the little Grove House on the 500-acre citrus ranch, nor smaller boarding chances.

The largest and one of the latest is the West McKinley Inn (\$2.50 per day) run by the Isle of Pines Land

Company. This is situated in the northwestern part of the island, and in all ways excellent. Has running water, gas, a good table, and a very fair kitchen garden. Only a small chapel or school and an attempt at a store anywhere near. One or two planters' places can be distinguished and others are scattered away in the surrounding open woods. The river

is on the eastern shore, well backed by a mountain, and looks attractive. In the summer it might not have as free breezes as the others.

Mr. Brown's Costa Inn at McKinley looks like a superior road-house, has a good patronage, and was commended. Two stories high.

There is no very satisfactory tavern at Nueva Gerona. Other places it



ROW OF OLD HOUSES ON THE VILLAGE SQUARE AT SANTA FÉ.

upon whose mighty banks it is supposed to stand (the Callejon) can be found if you search carefully.

Next is Mr. Simmons' hostelry, the Santa Fé Hotel, opened last December. He has revamped some substantial old one-story Spanish buildings, and offers large, well-fitted rooms and accessories. There is an ample porch. The dining-room looks out pleasantly on an orange-tree court. It is the only one of these inns situated in a village and not entirely out in the country.

The hotel of the Columbia Company I only saw from the steamer. It

might be advisable to learn something of before risking.

#### CLIMATE AND ALLIED MATTERS.

It is in the tropics, out in the blue Caribbean. Yet the encircling though somewhat distant shores of Cuba may account for some features of climate. Even the cyclones have a way of dodging this spot as though it were a sheltered oasis. There is no history of any recent notable storm, and only one of moderate severity in the past and of course in the summer season. Showers and night rains supply the needs. Our northern all-day storms are ruled out.



The sunlight and warmth of March was like softest June days, seeming less intense at midday than in Havana. A gentle and sufficient breeze played over the plains. On getting in the lee of some mountains there was less play of air. An active walk and climbing of gulches in the afternoon at Santa Fé proved moderately warming, but a seat in the shade soon corrected this.

The average daily change in temperature is less than 10 deg. And the range for the whole year is only some 40 deg. (at most from 50 to 95 deg. F., or usually say from 60 to 90 deg. F.). The entire range for one December was from 58 to 87 deg. F. Thus not only is the total variation small, but this occurs without suddenness.

Consequently, from fall until mid-spring—*i. e.*, during all our cold period, a perfect refuge from all extremes or marked changes can here be found.

The air is not specially moist. It is asked how can it ever be dry? In the first place, we know that it may be so on Long Island. Then our meteorologists show that it is change in temperature which precipitates moisture, and this is minimal. Soil and sunlight do the rest.

Never had cholera, typhoid or yellow fever, is the claim; perhaps lack the necessary mosquito for the latter.

Nicotinists will also be glad to know that from the way of living or the dissipating action of warmth or whatever cause, the same brand of tobacco has far less toxic effect than when indulged in at home.

A recent word says that this spring there has been some annoyance from dust.

Finally, let me recur to some medi-

cal indications that seem to be well met at the Isle. These refer chiefly to the needs of certain patients in the winter and colder seasons of our northern year.

First is the perfection of conditions there for the sufferer from arteriosclerosis or any condition where the heart is laboring against peripheral resistance, without marked cardiac lesion. No atmospheric chill, no sudden changes, an easy relaxation of the surface circulation, gentle activities, and particularly the life all day in the open air.

This of course contrasts with the cold douching once recommended for neurasthenia by certain enthusiasts, but which, like rum to the drunkard, is too apt to give comfort at the expense of subsequent retrogression.

To these assets may be added some useful mineral waters. The absence of trying excitement is also important. These same features are adapted to the relief of all tense, over-wrought, excitable states. For like reasons it has long been evident that the desirable winter refuge, the true hibernacle for most persons in the declining years of life was to be found under southern skies.

Per contra, we also know that the great arid belt between the Mississippi Valley and the Pacific Coast has a climate with largely opposite characteristics, and that however valuable it may be for some purposes, it exerts most deleterious effects in overstimulating the nervous system in the young.

These are not exactly the claims for the Isle put forth by boomers, by the laity, or by popular tradition. Writers speak of rheumatism, neuralgia, asthma, catarrh, liver and lung

troubles, skin diseases, and what not. Very likely. But it was for conditions in my line of work that I was seeking an improvement on our southern states.

Cuba hardly equals it, certainly not as yet for lack of suitable accommodations. Porto Rico may, so far as climate. But it is less accessible, requires a longer ocean voyage in smaller boats over a somewhat rougher sea, and has some indigenous conditions (diseases, animals) that are objectionable. And as yet there do not appear to be as excellent American inns away from towns, nor will this be well met by the proposed enormous caravansary at San Juan.

The Isle is nearer than California, has less range of temperature, and is less expensive for the sojourner.

I am assured that on the Isthmus of Panama there is even less variation in temperature. But that again is much further away, more expensive, subject to possible earthquakes, and withal too hot and moist for perfect comfort.

But along the northern Carribean we have an American Riviera, an American Mediterranean that beats the original immeasurably unless for the artificial adjuncts. Age, wealth and fashion unite in their winter patronage of the middle sea. For generations the human tidal rush has been increasing, and Americans by the thousand contribute.

Now, so far as climate and health are concerned, the immediate Mediterranean region cannot compare with our Carribean. Only by going well back into Africa, as at Biskra in Algiers, about 16 hours by rail inland, or at Assouan, still further back in Egypt, is there any approach to our southern climes, and there the

daily range is greater. A person must have considerable physical reserve to stand the journey from here to the interior of north Africa. And then there is the cost, the difference in language, and the long, trying ocean voyage. Owing to these limitations the number of our patients who can secure these benefits must remain small. Both for such negative reasons and from innate merits the nearer-home regions have an ample opportunity. A throng of our people now wend their way each winter to Florida, Nassau, and adjacent parts, that many, even amongst Europeans, think surpass the Mediterranean. Go a bit further and you improve on Florida.

Hence, whatever horticultural or commercial opportunities the island may offer, its climatic and hygienic advantages promise to outweigh all others and make the "indication" for its success its major development along this line.

Any region may have its superiorities and no one has all. Certainly the Pines offers special features, and it is worth any physician's while, both from personal and professional interest to become familiar with the little Isle, its outfit and possibilities.

#### ADDRESSES.

1. Dr. Omar Morgner, St. Charles, Mo.
2. Mrs. George W. Goff, East Hampton, Conn.
3. Mrs. Edward Man, North Stonington, Conn.
4. Mr. H. C. Needham, 89 Hancock Street, Brooklyn, N. Y.
5. Captain Joseph Ware, 285 McDonough Street, Brooklyn, N. Y.
6. Mr. A. A. Browning, Richards Building, Norwich, Conn.
7. Mr. N. H. Strong, Media, Pa. (Franklin Street).
8. Dr. H. S. Stearns, 45 W. 58th Street, New York City.
9. Mr. T. H. L. O. Stucke, 1469 Pacific Street, Brooklyn, N. Y.
10. Mrs. Sanford Meech, Groton, Conn.



11. Hon. W. H. Richmond, Richmond Hill, Scranton, Pa.
12. Mrs. I. N. Gifford, 171 Laurel Hill Avenue, Norwich, Conn.
13. Hotel Brooklyn, Havana, Cuba.
14. McKinley Inn, West McKinley, Isle of Pines (via Cuba).
15. Isle of Pines Company, 225 Fifth Avenue, New York City.
16. Information Bureau, Eagle Building, Brooklyn, N. Y.
17. Dr. Amos Avery, The Dalles, Ore.
18. Dr. F. E. Guild, Windham, Conn.

19. Mr. W. R. Simmons, Santa Fé Hotel, Isle of Pines (via Cuba).
20. Mr. H. R. Carlton, West McKinley, Isle of Pines (via Cuba).
21. Phi Gamma Delta Club, 34 W. 44th Street, New York City.
22. L. I. Historical Society, Brooklyn, N. Y.
23. Dr. F. W. Langdon, Garfield Place, Cincinnati, Ohio.
24. Mr. D. E. Waid, 156 Fifth Avenue, New York City.

## A VISIT TO THE BROOKLYN HOSPITAL

*Report of Stated Meeting of the Brooklyn Gynecological Society, held at Brooklyn Hospital, April 1, 1910.*

**I**F description lacking demonstration is dying out as the method of college teaching it survives as one of the diseases dulling medical societies—an atheroma, as it were, taking snap and spring out of meetings. A change to more clinics is in the air. Instead of talk about work one shall show it. Instead of statistics of services we will go see things done.

The New York Obstetrical Society has, on two occasions this year visited hospitals and laboratories (Mount Sinai and the Woman's). The Brooklyn Gynecological Society went to look at two services (the rare type in Greater New York in a hospital of fair size) one gynecological and one obstetric, each continuous, single, interlocking in its two departments. Each service holds the year round, with one man responsible (though he gives over the ward work to his associate for certain months) the lowest of the three men on the hospital staff acting as the highest of the men on the dispensary service, and the work a unit. Also the harmony in the working of the entire hospital staff,

general and special, visiting, house and dispensary, was dwelt upon, and thought to be due, not only to the courteous consideration of the trustees and the superintendent and the spirit of the medical men, but to a system of organized responsibility. Not for a service alone; but, as in big business, one man responsible for one department, such as house staff, drugs, dispensary, and operating room. This was shown to have been slowly, and almost completely worked out, the officer held to it, and interference with good work discountenanced. The application of such a method to an operating room was demonstrated, and the buildings looked over; of the two programs, all-operative vs. part-technique—part-discussion, the second having been chosen.

### INSPECTION OF THE LOW MATERNITY

DR. HUSSEY, in Dr. Stuart's absence, conducted the members through the building, showing the delivery room, the nursery, the wards, the medicine locker, and the history files.

*Delivery Room.*—DR. HUSSEY said:

We show this room prepared for a normal case. The patient lies on the big table, which is very strong and well padded and unusually wide. The patient can tumble about as much as she pleases without danger of falling off. The long table at the far side is for the sterile supplies and instruments. The small tables at the end of the room hold basins of sterile solutions. When an operation is on, such as a forceps or a repair, a small table stands at the left of the operator, and on it are placed the instruments required. From the crane which swings over the long table is suspended the douche can or the hypodermoclysis set, when needed. At the upper end of the room are the sterilizers, a hot water tank and an instrument sterilizer. The soap we use for hand disinfection is very popular with our internes. They come to us with tender hands from the green soap and scrubbing brush of the operating room, and after a week or two here their hands are in good condition again. The soap is a modification of the Schleich marble dust soap. No brush is necessary with it. We use a piece of gauze. This printed form on a clip on the wall is for notes of the progress of the case. The nurse puts down the important data at the dictation of the interne, and the notes are used later in writing up the history. This room is used for all deliveries except the major operations, and for all examinations. All cases are brought here as soon as they are prepared for examination and the interne takes a careful history, making a physical examination of the chest and mensuration of the pelvis. If he finds any abnormality he is required to report it at once to the visiting physician. All normal cases are con-

ducted by the interne. One of the attendings is present at all abnormal cases, when possible.

*Post-partum Ward.*—After the patient has been bandaged and prepared for bed she is brought to this ward or the one at the far end of the corridor. The middle ward is used for waiting cases, as far as possible. The nurse has two patients ready for you to inspect the binders we use. The one in this bed (indicating) has the bandage we commonly use. It is a tight binder extending from the shoulder to the thighs. The other is a modification, the many tailed binder. It has the advantage of being easily adjusted.

*Nursery.*—This large and airy room is used for the babies. After delivery each baby is brought here. The eyes are treated by wiping with a moist cotton pledget and then flushing the conjunctival sac with a 25 per cent. solution of argyrol. The measurements of the head are taken by the interne. We accommodate fifteen babies here and we often have more. The charts hang over the beds.

This basket is used instead of the incubators, which we discarded several years ago. There is an electric pad under the mattress which can be regulated to keep the premature baby at about the right degree of warmth. We have fewer deaths from asphyxia than we used to have with the incubators.

The cord dressing in use consists of a sterile pad of gauze and a sterile binder which are put on in the delivery room by the interne as soon as the cord is cut, and are left on for five days, unless very much soiled. The cord frequently comes off with the binder and we almost never see an



infection of the cord. In fact I cannot remember to have seen one for years.

*Medicine Locker.*—We have a system of cards in different colors to indicate the time for administering medicines. For example an order for a medicine that is to be given three times a day is written on a yellow card; thus from the color of the card the nurse knows when the medicine is to be given.

*Histories.*—We use a modification of the Sloane Maternity history sheet. The first page contains the history of the patient taken on admission, the second the history of the labor, the third the bedside notes of the puerperium and on the fourth, which is blank, is written up any abnormality not covered in the previous pages. We have the histories bound in volumes of one hundred each, and they are kept here for reference. We have about 2,500 up to date. A card index is kept of the names of the patients. On each patient's card is written the number of her history, and the nature of her case and complications.

A cross index of diseases or complications is also kept. To illustrate, looking in the index of names for Mary Smith we find that she was No. 1750, and that she had a deformed pelvis for which a Cesarean section was performed. Looking in the index of diseases for deformed pelvis we find No. 1750. Also under Cesarean section we find her number. The interne uses the index constantly for looking up the previous history of patients that return for a second or third confinement. While these histories are not perfect in all details they are of much value both to the internes and to Dr. Stuart and to me.

#### DEMONSTRATION OF OPERATING ROOM METHODS.

DR. R. L. DICKINSON.—The building used by the Brooklyn Hospital is an old building, combined with some new ones. Placed in its own park on a steep hillside, with a park behind it, there is no site to compare with it in Manhattan or Brooklyn.

In our staff organization we used to have committees made up of several members. Members could shift responsibility. Now we have standing committees composed of one man each, a kind of government by commission. So we always know to whom to protest when anything goes wrong. Dr. Wood, for example, draws up and enforces regulations bearing on the professional work of the house staff. Dr. Westbrook is responsible for this operating room. He has simplified and unified every part of the machinery. We work together in harmony according to rules and a schedule which he has worked out.

DR. R. W. WESTBROOK.—The Hospital, as Dr. Dickinson has shown, has tried to simplify and unify its methods. This is not a one man hospital. There are thirty men who have the privileges of the operating room, but less than half that number who operate regularly and frequently. The hospital has the advantage of continuous gynecological and surgical services. We have to adapt our work so we do not conflict with each other. We are a general hospital. We have the usual amount of septic material, the usual changes of nurses and house staff, and other disadvantages. The gynecological service shares in these

disadvantages. But pulling together as well as we have seemed to, we have simplified our methods so that the work goes very smoothly. We have agreed among each other as to the simplest possible use of materials and instruments, but we have not cut these down so as to reduce the individual equation, which is necessary for scientific work anywhere.

As regards the operating room committee, this committee is responsible for the signing of requisitions and keeping down expenses, and since that arrangement has been in vogue, there has been quite a saving of expense. When I first came in, we found quantities of old and large *catgut* which had accumulated and been shelved and ordered over again as the operating room nurse changed. Now there is very little loss in that way. We order new things once a month unless there is an emergency. The work of the office down stairs is in that way simplified and it makes a more business-like arrangement. There is a set of *operating-room rules* agreed upon, which are typewritten, and these rules cover everything that the ordinary working of the operating room brings into question. Some years back our methods of *sterilization* of both instruments and dressings were considerably more expensive to the hospital, more lengthy, and in every way more troublesome than at present and the results no better.

To come down to some of our essential points in sterilization, instruments are boiled ten minutes in one per cent. carbonate of soda solution which is quite sufficient to produce excellent results. We are

always careful to open forceps and needle-holders and all corrugated instruments. Knives and sharp instruments we boil only one minute. Dressings are subjected no longer to fractional sterilization, but for one-half hour at fifteen pounds pressure, the one-half hour reckoned from the time the air is driven out. This we have found to be quite complete sterilization for all purposes.

We are very fond of rubber *gloves* here which is one of our chief items of expense, but we do not spare expense in rubber gloves. We use the heaviest rubber gloves obtainable. Heavy pure gum gloves which fit tightly to the ends of the fingers are desirable. They are prepared to be put on dry; and after boiling for five minutes, having been looked over, repaired and powdered, they are sterilized in the autoclave half an hour at five pounds pressure. They certainly have to do with the excellent aseptic results we get. The nurses and assistants always wear gloves in clean operations. Sometimes the operators do not, but most agree that it is better to wear them. We had a great quantity of *needles* of all kinds, when I first came on as the committee, but we have agreed to cut down to twelve styles. I think we need one or two more for the specialists, but these twelve will do what is needed in the general hospital. We use stock needles as far as possible because we can buy them more uniformly and cheaply. One of our most expensive items is *catgut*. We have used *catgut* prepared by Claudius' method with iodine, and kept dry according to a modification of Moschcowitz. Its tensile strength will not surely outlast a month. As



far as aseptic results are concerned, it has been very good indeed. We are now using the commercial gut of Johnson & Johnson, which we have found satisfactory; we are using it in 28 and 120-inch lengths. A two-foot steel ruler is sterilized and used to measure sutures which are cut into "long" of 20 and "short" of 12 inches. The surgeon is handed a short length unless he asks for the long, and a single unless he asks for a double. We use few sizes of gut, one and two chiefly, and recommend that it be used double rather than of heavier sizes, if such be required. I feel that in this matter of catgut, light sizes may be used. One thing which has added to the expense of our catgut is that some of our operators are getting to fancy double sutures which doubles the expense. We pay the same price for small as for large sizes. I personally use only small sizes, Nos. 0, 1, and 2. I have seen the abdominal wall entirely closed with moderate size plain catgut in Kelly's clinic with results said to be perfect. I have found one can use smaller and smaller sizes of catgut as he becomes accustomed to it, and get results equally good as regards strength, and better as regards primary union.

For *cleaning hands* we have a soap solution very similar to the soap solutions on the market, and the directions are that nurses and assistants scrub five minutes and then soak in the bichloride 1 to 1000 or 1 to 500 one minute further. We use potassium permanganate saturating a 1-500 hot bichloride solution, and leave the stain on the hands until the work is over. We then remove it with the oxalic, and go away with clean hands. There is thus less perspiration from the

hands in the summer season. We recommend this to those who care to use it, but do not require its use.

We cut all our *ligatures* in similar sizes to those I have mentioned for sutures. We use black silk, silkworm gut, catgut and horse hair for skin sutures. We pay seventeen dollars a thousand strands for our best silkworm gut. We are fond of a linen suture for intestinal work, which is very strong and will stand a number of sterilizations, as we boil our sutures except catgut along with the instruments.

Our *nursing system* is one which requires the bringing in of new nurses every month, so that they may be instructed in operating room methods. This, of course, has its disadvantages as we all know. We have a paid operating room nurse in charge, who has full charge, under the superintendent, of the operating room assistant nurses. These assistants are instrument nurse, sponge nurse, and two waiting nurses.

We are at present trying a new method for passing of instruments, by which nothing is returned to the instrument table which has not been through the sterilizer. This does away with errors of judgment on the part of the nurses and makes everything sterile and unused which is on the instrument table. It is a system which will have to be tried. Personally I would prefer a more elastic and less lengthy system. It requires a good many needles and sponges, but it is an absolutely safe system and a good general plan to follow.

We use the Weck's safety razor for shaving, costing \$1.50, and are instructing the nurses in using it. The skin is scrubbed thoroughly with green soap and then washed off with

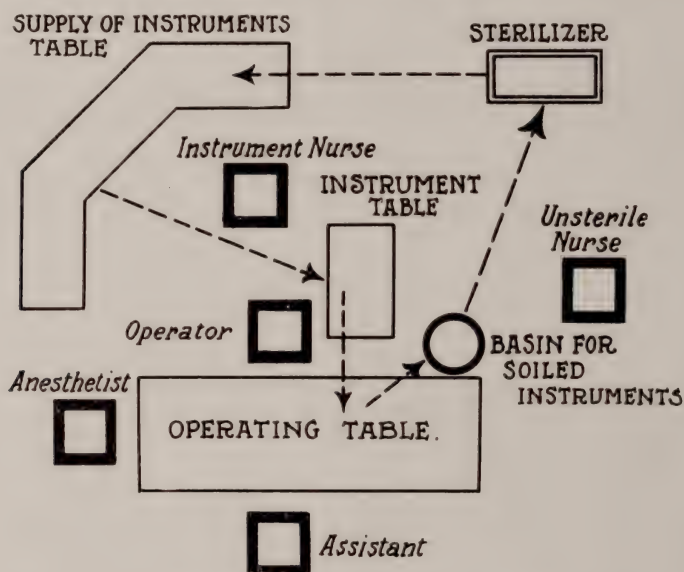
sterile water. Harrington's solution is then applied over the area. The formula is as follows:

|                       |           |
|-----------------------|-----------|
| Alcohol 95%.....      | 640 cc.   |
| Hydrochloric acid.... | 66 cc.    |
| Bichloride of mercury | 0.8 grams |
| Water .....           | 300 cc.   |

It makes practically a 1 to 1250 solution of bichloride of mercury in 60 per cent. alcohol. Sixty per cent. alcohol is a more thorough disinfectant than 95 per cent. alcohol. We use Harrington's solution carefully, as it will cor-

room, though some few cases go to a small room below.

DR. DICKINSON.—The anesthetized patient is brought into the corner of the operating room, but not near where the instruments for operation are laid out, and there scrubbed. I do not use upright leg holders because they place the foot exactly where it is most in the way of the assistant. Dr. Pomeroy and I use a sheet sling instead. It is so rolled as



rode and will burn the patient if allowed to run down into puddles. The patient is covered with a dry sterile shield after preparation and not kept over night in a wet dressing. Harrington's solution is omitted about the vagina. The douche is made up of Thiersch's solution chiefly. Thiersch's solution is 15 gr. of salicylic acid and 90 gr. boric acid to the pint of water.

Some of our operators prefer to paint tincture of iodine over the skin of the operation area as the final step of preparation on the operating table.

All operations in the hospital are practically done in this operating

to have rope-ends and shawl-center. This shawl bears broadly back of the patient's shoulders, and is not a cutting rope about the neck. We throw the knee as far toward the shoulder as it will go with the lower leg pointing to the ceiling to open the popliteal space. Then the rolled end of the sheet is brought over the outside of the knee and swung around the head of the tibia. There must be enough length to tie around below the knee. In placing the Kelly pad one does not hoist the pelvis, one rolls the legs far to one side, slides the doubled pad under, rolls her to the opposite side,



straightens the pad, and the patient comes back to equilibrium.

DR. J. O. POLAK stated that he does not use this method of holding the limbs in position, as, in his experience, it has caused considerable backache to the patients.

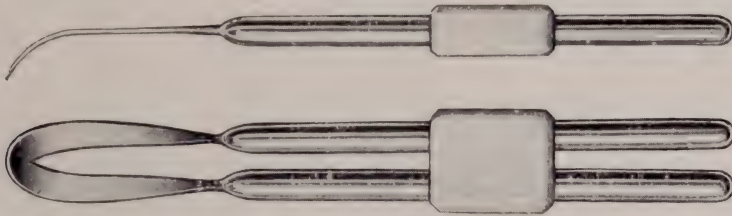
DR. POMEROY said that the Brooklyn Hospital experience did not bear this out.

cases of malignant disease of the cervix and uterus, among them a group of three cases prepared one morning for cautery hysterectomy. The pathologist's test made in the operating room by the freezing microtome on the first case, showed that the raw, everted, bleeding cervix, apparently malignant, was perfectly normal, but the unsuspected



DR. DICKINSON.—To show what Dr. Westbrook meant by orderly progression in use and passing of instruments, here is an example: In performing a curettage, the first step after catching the cervix would be to scrub out the canal, then drop the forceps and gauze one side or the other into a basin so that it does not go

scrapings from the uterus were definitely malignant. The uterus was, therefore, removed. The second and third cases proved to be cervix carcinoma. In another instance in which there had been slight bleeding for only three weeks, advanced carcinoma was demonstrated by this method.



PLATINUM KNIFE.

back among the clean instruments. There is another sound here, so if we need a second one, we can use it. A rotation of instruments occurs by which the operator makes no contact with the instrument nurse. The operator may use his instrument table freely for needle holders, scissors, etc., but when through with a tool does not drop it back among the clean instruments. It goes its way toward the sterilizer.

#### DESCRIPTION OF CASE.

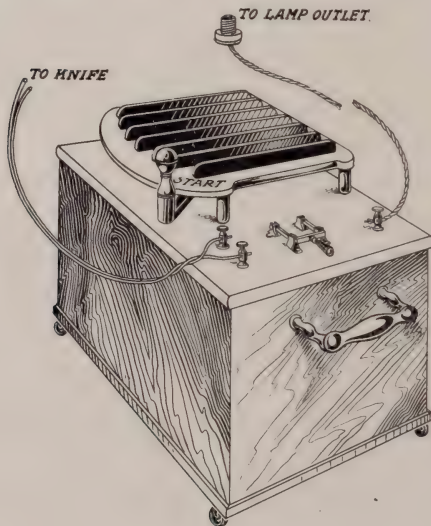
In demonstrating the cautery Dr. Dickinson described briefly several

DR. HULSE here demonstrated the use of the *freezing microtome* for immediate examination of sections in the operating room at the time of operation.

DR. DICKINSON.—The cautery outfit I show you has been long enough in use to assert that at last all that Dr. Byrne could do at his best with the vacillating battery, we trustily carry out with the Edison current taken by this cord from any lamp-socket. These are the betterments:

I. A rotary converter (boxed, on wheels,) of such power as to steadily

heat a larger knife; 2, a handle so heavily insulated as to stay comfortable throughout, and 3, a platinum knife so thick that it steadily carries low heat without cooling, or delays, and so strong that the bladder may be shoved away by it, yet, unlike a Paquelin, it is thin-edged to cut, and flexible enough to be bent to curve about a tumor. Now Brooklyn's great work on cancer can be taken up again and the results of John Byrne tested. They have never been approached. They have not been attempted because of



The rotary converter on rollers, with its current taken from any outlet, and its cable (rubber-tube covered), to a heavy handle carrying a thick platinum blade.

the baulking batteries in hands less clever than those of the surgeon of St. Mary's. For it is approximately true of cancer of the cervix that any case curable can be cured by cautery amputation, and this with a minimum of risk, suffering and skill. Wappler built this transformer, Kny-Scherer the handle, but the Wappler handles are excellent. No other outfit of such power has been made.

A hysterectomy would take more time than you care to stay, so I pre-

sent a five-minute case. The point in opening this cul-de-sac with the actual cautery is that cautery incisions remain open.

#### OPERATION BY DR. DICKINSON.

The cautery knife dissects dry, and if the heat is low enough, without bleeding. I have opened up a pus tube cavity of about two inches in diameter. We drain with a T-tube or an inch strip of zinc oxide gauze. Johnston & Johnson have stopped making zinc oxide gauze, I regret to say. It keeps sweet as long as iodoform gauze and does not cause the same malodorous inferences.

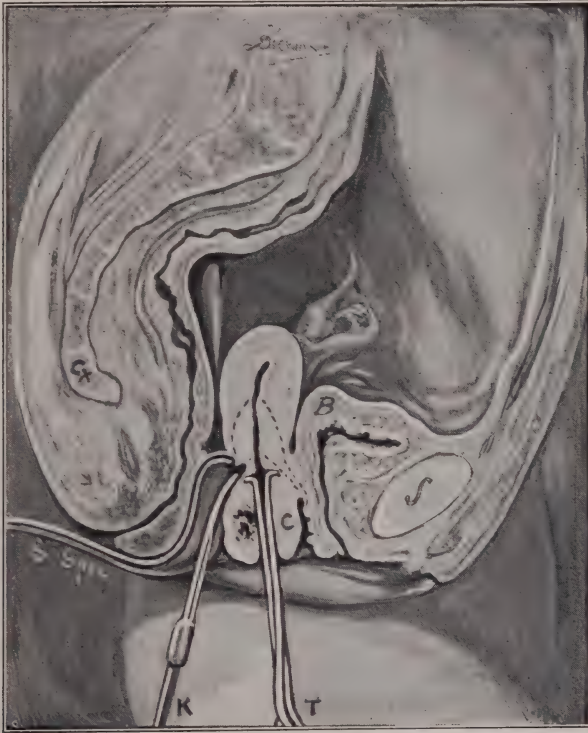
*Dressing of the Abdomen.*—I have practically done away with the binder. Dr. Pomeroy and I close a great many wounds with the zinc oxide  $\frac{1}{2}$ -inch straps without any skin suturing, believing the drainage is better. We put a small gauze piece over the incision so the whole dressing does not stick to the wound. Then the bulky dressing, and last one thickness of loose gauze to stick fast to the adhesive plaster so that the plaster comes off easily later. Next, the assistant puts his finger on the crest of the ilium on one side and I put mine on the antero-superior spine on the other, and we two stretch the two-inch adhesive strap diagonally, just missing the bone. The second long broad strap crosses in the other diagonal. The third lies transversely above the crests, and the fourth horizontally below the crests, and the dressing is completed.

While I take off my gown I superintend the writing up of the important items of the operation. Afterwards the house surgeon can imagine all the details he wishes. We



have all important facts on record, as for instance, that the appendix has been taken out. There will be no question to-night, when, as in many hospitals, the tired house surgeon sits down to write up his histories and he ponders and wonders which ovary came out in that fourth patient. The headings, *i. e.*, the synopsis of the operation, only need

the list of diseases and injuries of the Seney Hospital report can be compared with that of the Brooklyn Hospital, with that of Roosevelt Hospital, St. Lukes, etc., that is, with reports of all hospitals which have adopted the Bellevue nomenclature. There is no such thing as a perfect nomenclature, but if we use a fairly good list, and all use



THE CAUTERY OPERATION FOR CARCINOMA OF THE CERVIX.

to be written in the operating room. The drains and the stitches are entered at this time so we cannot help but see later that they are there to be removed.

We do not allow any license in naming of operations. A surgeon here, therefore, can do no operations except those on this sheet. It is the Bellevue nomenclature. Several of the hospitals have adopted the standard list and do not follow it. We have adopted it and do follow it. For the first time, for instance,

the same list, comparisons can be made. All you have to do is to ask your internes to use them or your history committees to enforce them. I would like to ask the president to appoint a committee on standardization of nomenclature of operations to co-operate with committees from other gynecological societies.

DR. DICKINSON showed the new urethroscope of Buerger, the tiny Bier cups for emptying vulvo-vaginal abscesses and sucking Skene's glands

dry, as well as the new anal speculum made of glass with its small lateral opening through which one can probe to determine whether a suspected spot is a fistulous opening or not. This is a device of the Visiting Gastro-Enterologist, Dr. Roberts.

In making rounds in the hospital, all persons connected with the work of the hospital should wear labels bearing their names. An attempt is being made to educate the Hospital up to it, so that every one, nurses, doctors, office force and house force should wear their names on labels, as some of us are doing to-night to demonstrate its advantage. Lapel-labels were worn on the occasion of the recent visit of the Philadelphia Obstetrical Society to the New York Obstetrical Society, and evoked favorable comment.

#### METHOD OF KEEPING HISTORIES IN THE MAIN OFFICE.

DR. R. L. DICKINSON.—The history matter we think we have solved. There is a minimum requirement, and this is irreducible. There is an official nomenclature (The Bellevue) and this is inflexible, yet elastic.

The sheets are as follows: First, an admission and summary sheet in one. The second is a temperature sheet containing both the temperature, urinalysis and the blood tests. The continued history and the nurses' notes go on one sheet, the third. The provisional diagnosis we are particular should be entered by the man who admits the case. In one hospital last week I found a patient in the hospital five months without a recorded diagnosis. The diagnosis itself must be entered as soon as it is determined. We insist also on entry of the condition on discharge. The nurses' notes, written on both sides of the sheet, are

bound in. All histories are signed by the visiting. Our fourth sheet is an operation sheet. These four cover all cases but the obstetric, and the one page that covers the ordinary adenoid history.

We bind by the Bellevue method. For example, all the fractures are bound together. Binding by admission numbers is the quickest and simplest. When, in binding by admission number, a case stays in the hospital six months or a year, it need not hold up the binding for all that time, because a blank sheet can be placed in the volume referring to a later volume in which the belated history stands.

Whenever it is possible, it is desirable to make diagrams. They are made easily by the use of rubber stamps or outlines. The gist of this history matter lies in early entry of provisional diagnosis; entry of diagnosis when made, following the official terminology; operation synopsis entered in the operating room and signed; condition on discharge filled in, and, finally, signatures of the visiting, preferably when the patient is recommended for discharge.

*Boundary between Surgery and Gynecology.*—In this hospital where general and gynecological surgery live in peace side by side, the following regulations have been found to work smoothly:

To the gynecological service are referred all general admission cases\* of women with disorders of the pelvic organs, excepting those directly due to existing pregnancy or caused by delivery or abortion occurring within a fortnight. But, "Any patient with a pelvic disorder referred directly to one of the surgical visiting staff or to an associate on the surgical staff shall be credited to his surgical service."

\* Free cases or those paying less than \$10 a week.



Also, "Unless in labor, any pregnant patient with a disorder primarily gynecological (*e.g.*, ovarian cyst and ectopic gestation) shall be referred to the gynecological service. A female patient with minor pelvic ailments requiring operation and major conditions calling for general surgery shall be assigned to a surgical service.

\* \* \* When in doubt, reference should be to the general service." Diseases of the bladder in women belong to the gynecological department. The disposition of rectal surgical affections in women would be a matter for difference of opinion were it not that such affections rarely exist unaccompanied by other pelvic disorders.

It is a good thing to have ten-dollar-a-week patients classed as private. It makes for the self-respect of women of moderate means, such as school teachers; it permits members of other services to send in and operate on such cases, thereby adding to the income of the hospital; and it works out practically for the benefit of the surgeon by bringing to him a not inconsiderable footing of smaller operation fees.

The question of *what operations to give to residents* we have worked out in this way. As between the visiting associate and house officers, the claim of the house officer to the right of gaining clinical knowledge by assisting at operations—in which only one besides the operator sees anything—can be fairly met without detriment to the patient. The associate should be first assistant at important private operations and he may be first assistant in difficult and dangerous free cases. At the beginning of the term of the house officer as senior on gynecological duty the associate acts as first assistant, the house officer as second. As soon as this second assistant shows himself fit to be first assistant, he is to

take this position, and the associate only attends by request, though notified of every operation. What operations will be given to the resident will depend entirely on his ability and whether he proves himself to be endowed with surgical sense or not. All that can be given him without detriment to the patient should be given, under supervision, near the end of his term. He has drudged many months in the hope of reaching this goal and, though we, who know what his practice will bring, may smile at the small chances of using his experience and at his faulty sense of proportion, we cannot deny him his coveted reward.

*Do internes make vaginal examinations* and take histories in private cases? For the benefit of the future private patients of the house staff all practicable clinical experience must be given to the residents. In order that intelligent care may be taken of the patients, particularly in emergency and subsequent to operation, the interne must know and see as much as possible. But it is not easy to make house officers comprehend that one great dread in entering a hospital, on the part of any woman, is the fear of exposure or questions or examination or, indeed, any professional contact with "new doctors" or "young doctors," and also that insistence on their clinical privileges to an unwise degree will result in a reputation that will soon cut down any gynecological service. There are certain peasants and others whose feelings do not take offence at careful study. This careful study of history, physical conditions and post-operative behavior may be of great importance to the recovery of any patient. One cannot be too particular concerning exposures and publicity. Wherefore, it is necessary to enforce

a regulation usual in the larger hospitals; namely, that in private cases, except in emergency, no vaginal examination is to be made by the house staff without the sanction of the attending. The same holds true of the details of the history of private patients, which is a confidential communication by the patient to her physician and which cannot continue to be so if spread upon the records.

*Relation of Hospital and Dispensary.*—Dovetailing is of importance to

the patient: the provisional diagnosis and important points entered on the reference card sent into the hospital with the patient; the follow-up into operating room and ward by the dispensary surgeon; the reference back to the dispensary with a memorandum of operation, and the after care insisted upon. These Dr. Cary is working out, with Dr. Tong and Dr. Sidney Smith, and the new field of cystoscopy has its own room and days under Dr. David Lloyd.

## TUBERCULOUS PERITONITIS.\*

By CHARLES H. GOODRICH, M.D.,

Attending Surgeon to the Methodist Episcopal Hospital and Brooklyn Orphan Asylum.

THE observation of tuberculous peritonitis in the experience of the surgeon is not an index of the frequency of its occurrence. An accurate percentage estimate can hardly be made, although the unexpected findings at autopsies and in operations undertaken for the relief of other pathologic conditions are somewhat instructive. About 60 per cent. of all autopsies demonstrate the existence of some tubercular lesion. About 3 per cent. of these tubercular cases show peritonitis. Certainly it can no longer be considered a rare disease. Again we encounter difficulty in attempting to determine what proportion of cases demand surgical care, as an admittedly large number are never diagnosticated and are cured by the general and medical treatment of discovered tuberculous lesions of other parts of the body. In other cases the peritonitis is but one feature of a general miliary tuberculosis from which patients die or from

which they recover temporarily or permanently by the arrest of the progress of the infection. With every credit given for the results of conservative, general, and medical treatment there exists a large and important class of cases demanding from the surgeon superior diagnostic acumen and sound judgment in general and operative treatment. That these accomplishments are not possessed with ease and certainty is suggested by a survey of the literature of the past years, replete with curious cases, inaccurate diagnoses, and interestingly variable opinions from diligent workers, many of them masters in their art.

### ETIOLOGY.

The cause of tuberculous peritonitis is the infection of the peritoneum by tubercle bacilli. It has been stated by various authorities that it may be a primary process. This does not seem credible when we study most of the pathological records. Yet Borschke found two cases in 226 autopsies where no other primary focus

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was discovered; Munsterman and Hamman each report one case; and Osler has stated that many cases show none but peritoneal infection (quoted from Hamman). That the peritoneal invasion is usually secondary is certainly true.

The bacilli reach the peritoneum in various ways:

1. Frequently the process is secondary to tuberculosis in the lungs or pleura or in both. In these cases the infection usually extends by way of the peri-bronchial lymph nodes, the descending lymphatics which perforate the diaphragm and thence to the mesenteric glands (which are involved in the majority of all cases of tuberculous peritonitis).

Again, in cases of pleuritis or pericarditis the bacilli may pass through the diaphragm by ulceration or infiltration. Apert reported a case coming to autopsy in which there was no involvement of any abdominal organ, but the entire peritoneum was studded with tubercles. He demonstrated (with the microscope) infiltration of the diaphragm, and bacilli in the tissue and the lymphatics thereof.

2. Tubercular enteritis or enterocolitis gives rise to tubercular peritonitis through the medium of the mesenteric glands (usual route) or by infiltration of intestinal wall in the region of the ulcerations. In turn the intestinal infection may be derived from the ingestion of infected milk or meat or from sputum not ejected. Osler believes that chronic enteritis or enterocolitis predisposes to tubercular peritonitis especially in children.

3. The tonsils, next to the bronchial lymph nodes, are credited as the important gateway by which bacilli enter the lymphatic circulation. Successive

chains of glands may thus be infected and some consider that in this way the mesenteric glands often become involved and so the peritoneum.

4. In the female, tubercular salpingitis may cause peritonitis, the process extending by contiguity from a focus at or near the fimbriated extremity to the surrounding peritoneum. Many surgeons (including Mayo, Murphy, Cummins, Kelly, R. Johnson, Hegar, Edebohls, Kustner, Aldibert and others), consider this a frequent source of the peritoneal lesion. A. K. Stone and others consider that in no great number of cases do the tubes play a causative part. Cummins found that of females in his series 40 per cent. had tubal disease.

5. In the male, tubercular epididymitis may cause infection of the peritoneum by transmission of the bacilli along the lymph vessels of the spermatic plexus. Eight per cent. of Cummins' series of males had some form of genito-urinary tuberculosis.

6. Tubercular appendicitis and typhlitis have recently and frequently been described as primary lesions. Usually abdominal section demonstrates a more or less generalized tubercular peritonitis associated. A few cases with only appendical or cecal or combined involvement are recorded. Unquestionably here is an occasional source of the disease, although some operators have held that it is the secondary infection of the appendix that gives rise to the symptoms and the preponderance of the inflammatory phenomena in the right iliac region. Occasionally we find a conglomerate tubercular mass at the ileo-cecal valve involving lower ileum, cecum, and appendix and offering a tumor very like carcinoma.

7. A general military tuberculosis may cause peritonitis through the medium of the blood.

8. A time-honored belief that the peritoneum is often directly infected by the rupture of caseous mesenteric lymph nodes into the general cavity (Nothnagel) should be mentioned. The suggestion that this may account for many of the acute cases seems reasonable.

*Influence of Sex.*—Widely varying statistics on this point are most interesting. The writer's experience would lead him to believe that about 65 per cent. of the cases occur in the females. Of his operative cases (nine in number) there have been six females and three males. Some writers state that the sexes share honors equally. Stone and others have found that males suffer more frequently than females. The Mayos up to 1908 found four females affected to one male.

It is interesting to note that those who credit the great majority of cases to the male sex are almost invariably medical practitioners, or pathologists, while the surgeons as invariably consider that the largest percentage are females.

In children the sex seems to play no important part.

*Influence of Age.*—Patients of any age may have tubercular peritonitis. My review of the literature has uncovered one case in an infant of fourteen months and one in a patient of eighty-two years (Cummin). The disease is not common in early childhood. It is quite common between the ages of eight and twenty, most frequent between the ages of twenty and forty, and quite common again between forty and fifty. When fifty is past the percentage rapidly decreases.

I have found but three cases in persons beyond seventy.

*Influence of Color.*—Negroes have been said to possess a peculiar predisposition to this form of tuberculosis, but case reports do not demonstrate this. Approximately 8 per cent. of cases reported have occurred in the colored race.

*Influence of Pregnancy.*—An impressive number of cases have occurred soon after the completion of a normal pregnancy (Kelly). Likewise miscarriages have not infrequently been succeeded by tuberculous peritonitis.

*Influence of Injury.*—Not a few cases of tuberculous peritonitis have followed, almost immediately, some form of injury, often a surgical operation. In Holmes' case of an enormously cystic gall-bladder (with calculi in the cystic duct) causing pressure on portal vein and ascites without tubercular peritonitis, operation was followed immediately by a rapidly progressing tuberculous peritonitis and death (patient had suffered from pneumonia and pleurisy three years before and some months before operation had had a period of afternoon fever). Plummer's case also followed quickly after section for abdominal contusion from the kick of a horse. No lesion was discovered at primary operation. Ochsner operated for gastric ulcer and pyloric obstruction. At this time there was no sign of tuberculous peritonitis. Six months later signs of acute intestinal obstruction developed, and abdominal section revealed a violent diffuse tuberculosis of the peritoneum from which patient recovered.

*General Influences* which predispose to other forms of tubercular disease must be reckoned with in considering



the etiology of tuberculous peritonitis. Among these should be mentioned hereditary tendencies, insufficient or badly balanced diet, bad sanitation, infectious diseases of childhood, endarteritis with resultant lesions of liver and kidneys, and the lack of fresh air.

*The Influence of Portal Stasis* in predisposing to tuberculous peritonitis has been widely discussed. Certain it is that hepatic cirrhosis and this disease have frequently been associated. Some have asserted the peritonitis to be primary, but it is generally considered that the cirrhosis is followed by the tubercular invasion of the peritoneum. Most of these patients are alcoholic habitues.

#### PATHOLOGY.

Here the question arises as to whether we have to deal with a variety of forms of the disease or whether the seemingly varied forms are merely different stages of the same process. The consensus of opinion seems to favor the view that all forms are exemplifications of the various degrees of progress or retrogression of the tubercular infection. I cannot adopt this view without qualification. The pathologic findings in the various types differ widely enough to permit the thought that some of the variations, at least, are due to the expression of different degrees of infection in relation to different degrees of resistive power in the individuals attacked.

The writer suggests the following classification of the various types:

1. The localized miliary tuberculosis of the peritoneum.
2. The disseminated miliary tuberculosis of the peritoneum.
3. The serous type.

4. The plastic, fibrous, adhesive, fibro-cystic or nodular type.

5. The caseous or ulcerative type.

6. The suppurative type.

1. The localized miliary tuberculosis of the peritoneum is that class of cases frequently if not usually diagnosed as acute appendicitis or salpingitis. The appendix and cecum with more or less of surrounding peritoneum, or the Fallopian tubes, are studded with grayish-white miliary tubercles, and the subserous tissues are more or less congested or thickened by infiltration. Plastic lymph may or may not be found. A moderate serous exudate may be present.

2. In the disseminated miliary type, which is often, clinically speaking, the acute type, we find the widespread distribution of tiny, discrete, miliary tubercles, usually quite superficial, nearly all of which are surrounded by a small hyperemic zone. They are often most numerous upon the serosa of the small intestine, the ascending colon, the omentum, and the mesentery, although the peritoneum covering the liver and spleen and the parietal reflections are often involved. In this form there is usually found but a slight or moderate excess of serum, which may be of an icteroid tinge or slightly sanguinous. Flakes of lymph are absent or few and there is slight, if any, tendency to adhesions.

3. The simple serous tuberculous peritonitis is, in many instances, the disseminated miliary type with the addition of an excess of serous exudate free in the general cavity of the peritoneum. In this serum bacilli have occasionally been demonstrated. Considerable serous exudate is present in about 75 per cent. of cases observed, although it is undoubtedly true that a large percentage of cases with little

or no serum, escape notice. The quantity varies from six to eight ounces to several gallons. In one of the writer's cases, a girl of fifteen, six quarts were evacuated. Re-accumulation is frequent (in perhaps 12 per cent.), but less often after the cases subjected to section than after tapping. The removal of the serum is considered advisable because its presence is supposed to permit and encourage wider dissemination of the tubercular infection. Gelpke and others, however, have suggested that the serum contained bacteriicidal bodies and therefore it should not be removed until time enough has elapsed to render it impotent. There-upon its removal may permit new and potent serum to form.

The association of the serous and the adhesive type of the disease is quite frequent.

4. The plastic, fibrous, adhesive, fibro-cystic, or nodular group of cases have as salient characteristics the matting together of coils of intestine, or of omentum and intestine, or adhesion of omentum to any of the abdominal viscera or to the parietes. The matting together of intestines may be extreme and the entire mass occupy a small space, often with omentum rolled neatly around it like the wrapping of an irregular shaped bundle. This, or the wadded up contracted omentum gives the characteristic "sausage shaped tumor," by which the lesion is quite frequently recognized. Minute, moderate, or immense collections of serous or sero-sanguinous fluid may be encysted among the adhesions or occupy the pelvis and lower abdomen (hence the frequent mistaken diagnoses of ovarian, omental and mesenteric cysts). Thickened or con-

tracted omentum may show irregular masses or tumors. The mesentery is often contracted and the mesenteric glands hard and nodular. The adhesions may be delicate like cobwebs or firm and strong.

The intestinal walls are sometimes much softened by infiltration and tend to tear or perforate readily. This is frequently seen in the cases with acute symptoms. Certain pathologists consider that the adhesive or fibrous form of the disease is invariably an advanced stage of the simple serous type, showing the effort on the part of the individual to encapsulate the infected areas and to cure them by a beneficent fibrosis similar to that exhibited in pulmonary cases.

The fibrous type of the disease, with a minimum of exudate, has been found to be more frequent in men than in women.

5. In the caseous or ulcerative form are found one or more areas of caseous degeneration among masses of adhesions or confined to the region of the mesenteric lymph nodes, or in the neighborhood of tuberculous ulcers of the intestine or about the extensively involved female organs.

6. Suppurative foci may be found in the pelvis, the ileo-cecal region, or encysted among adhesions. That this form of tuberculous peritonitis is often due to mixed infection is generally conceded. Nor can anyone reasonably doubt that pathologically it is an advanced stage of one of the varieties heretofore mentioned. It is frequently the case that the occurrence of suppuration first calls attention to the long affected abdominal cavity.

The tumor, like masses of tuberculous peritonitis are one of four types. 1. Encysted collections of



serum. 2. Irregularly contracted mesentery or omentum. 3. Enlarged mesenteric or retroperitoneal lymph nodes. 4. Thickened or retracted coils of intestine.

#### SYMPTOMS AND COURSE.

Tubercular peritonitis is a "peculiarly imitative disease and there is hardly any acute abdominal affection which it may not, in one of its unsuspected forms, simulate" (R. Johnson). More than this it has at various times been confused with many varieties of non-tuberculous sub-acute and chronic inflammations, and with nearly every type of abdominal tumor. Thus a full account of the various possible symptoms and causes of the disease would clearly fill a volume of proportions. Let this be a sufficient excuse if our brief account of symptoms seems incomplete.

Pain is a rather constant symptom. It is common in those cases having abdomens distended with fluid, those with extensive adhesions between intestinal coils, those in which the mesentery is contracted by cicatrization of the tubercular nodes and surrounding infiltration, and in those presenting some acute primary or prominent localized inflammation such as appendicitis or salpingitis. It is not common in the disseminated miliary cases with considerable exudate.

*Fever* may or may not be recorded. Certain acute cases exhibit violent febrile reactions. In some of the sub-acute and chronic cases the temperature remains subnormal. In the majority a slight or considerable rise occurs in late afternoon or early evening with reasonable regularity.

*The Pulse* varies in rapidity according to the acuteness of the course

and the embarrassment of the circulation by the intra-abdominal pressure. In quality it is often soft and small, although the bounding hard pulse may accompany the acute febrile reaction.

*Respirations* may be increased by the concomitant pulmonary, pleural, or pericardial involvement, or by upward pressure on the diaphragm.

Thoracic breathing is common.

*Digestive disturbances* are common if not invariable.

Anorexia is the rule.

Nausea, passive or active is common.

*Vomiting* may occur irregularly in any case, but is common where adhesions are extensive or pressure intense. In the very acute cases or in the presence of obstruction it is to be expected.

*Diarrhœa* is often present, but is usually due to ulcerations in the lower ileum or in the colon.

*Constipation* is not infrequent, due to inactivity of the intestines on account of the degeneration of muscularis, decline in quantity or quality of secretions, or to retarding of the fecal current by adhesions or to the development of a tubercular mass annular or plaque-like in the intestinal wall.

*Obstipation* may be the result of adhesions or a tubercular tumor.

(Dr. Grant Baldwin presented an interesting specimen of annular tubercular tumor at a recent meeting of the Hospital Graduates Club of Brooklyn.)

*Anemia* is the rule in these cases. In the early stages red blood cells usually approximate the normal number, but hemoglobin is low. Later the red cell count declines considerably. I have seen one case with 2,400,000. Occasionally these patients tend to

deceive us by exhibiting excellent color.

*Leucocytosis* is present in a fair proportion of cases, perhaps 60 per cent. White cell counts as high as 40,000 have been reported, but it is presumable that the counts exceeding 20,000 are associated with cases of secondary infection by bacteria other than the tubercle bacillus. I have heard it stated that leucopenia was the rule in these cases. The three recent cases which I have observed have all shown a marked increase of leucocytes (15,000 or more). There is usually little or no increase in the percentage of polymorphonuclears unless secondary infection has supervened.

*Loss of weight* is common, sometimes extreme.

*Headache* is a fairly constant symptom in women whose pelvic viscera are involved to any extent. Otherwise it is uncommon save in those cases with marked digestive disturbances and auto-toxemia.

*Pigmentation* of the skin, especially of the face is occasional, and suggestive even where the adrenals are not involved.

*The menstrual function* is often unchanged.

*The abdomen* may be dome-like in appearance or flat with slight irregularities. Palpation may reveal nothing, or a cystic collection of fluid, or multiple cystic or nodular masses. There is usually no visible peristaltic wave unless obstruction is present. *Umbilical fistulæ* or mere redness about the umbilicus may be present. The evidences of a cellulitis of the abdominal wall are occasionally seen due to a suppurative tubercular process.

*Sweating* seems to be less common

than in other forms of tuberculosis advanced to a like degree.

*The course* of the disease is so variable that the description must include several classes of cases. Arbitrarily these classes are four in number, but the symptoms-complex of one may readily merge into that of another class in any case.

*Acute cases* of tuberculous peritonitis may apparently begin suddenly, although an unsuspected process exists previously in many cases. These cases may be seized with a chill followed by fever, pain, and all the usual signs of peritoneal irritation common to processes due to pyogenic microbes. They may simulate appendicitis intestinal obstruction, suppurative salpingitis, and other acute lesions. An apical lesion or tubercular focus elsewhere and the blood examination may be the only signs which guide us to a correct diagnosis. Sometimes an actual obstruction from bands or tubercular tumor may acutely attract our attention to a previously unsuspected but gravely involved peritoneum. A case is recorded where an umbilical hernia containing omentum suddenly became inflamed and ascites developed rapidly. Operation revealed a tuberculous process general in the peritoneum (Marlow).

*Sub-acute cases* are perhaps most frequently seen, and they are probably more accurate diagnosis possible in cases of this class than in any others. A gradual swelling of the abdomen, associated with slight or considerable fever, moderate or variable digestive disturbances, moderate rise of pulse if any, and progressive anemia and emaciation are often found. Examination reveals ascites without hepatic enlargement, little or no tenderness, and often the intestines



may be mapped out in the upper abdomen forming a semi-solid tumor to the feel which gives a somewhat tympanitic note on percussion. Vaginal examination may reveal a moderately tender induration of the appendages or only fluctuation due to the accumulated serum.

At times, however, these cases simulate typhoid fever quite closely and the usually present diazo-reaction may throw the diagnostic responsibility upon the Widal and other blood examinations. The sub-acute cases have also been diagnosed as malaria, psoas abscess, and retroperitoneal phlegmon.

*Chronic cases* are also common. Here we find often a similar but more slowly developing clinical picture to that described in the sub-acute cases. Constipation is the rule. Abdominal discomfort, if not pain, is frequently present. Fever may be absent, or slight rises of temperature may occur with greater or less irregularity, or the subnormal record may be persistent. As the disease advances digestive disturbances, anemia, emaciation, and general weakness become more marked. Pigmentation of the skin is common among this class. Multiple fluid or nodular tumors may be found in the absence of general ascites. These cases have often simulated cirrhosis of liver, cysts of ovary, omentum, or mesentery and malignant tumors. One case is recorded where the surgeon opened the abdomen expecting to remove a uterine fibroma.

*Quiescent Cases.*—This class comprises those cases discovered upon opening the abdomen for the relief of some other existing condition. The majority of operators have been treated to this surprise. Indeed,

many of the localized cases have thus come to light.

#### DIAGNOSIS.

There perhaps is no lesion of the human body which illustrates more graphically the importance and value of painstaking investigation than tuberculous peritonitis. Even with this aid a positive diagnosis cannot always be determined. But with this aid we can suspect where with less application we might overlook.

Family history of tuberculosis may be an element of importance. Previous personal history of cured or arrested pulmonary tuberculosis may prove useful, as may an account of excised or incised lymph nodes or repeated attacks of pleurisy or chronic cough. A thorough general physical examination may reveal unsuspected tubercular lesions. Thus enlarged lymphatic glands, a nodular epididymis, thickened Fallopian tubes, a dry pleurisy or consolidation at the pulmonary apex, or indurated seminal vesicles may direct our attention to the possibility of a tubercular element in abdominal conditions.

The general health of the patient has usually suffered out of proportion to the duration of the disease as noticed by the patient and the severity of the abdominal symptoms and the associated discomfort. Thus loss of weight, the degree of anemia, the anorexia, and the general weakness may be indicative. Rarely the disease attacks those in excellent general condition, but these are usually acute cases.

Pigmentation of the skin, especially of the face, is considered by many to be very instructive.

*Abdominal examination* often reveals effusion considerable or excessive. This may be free in the gen-

eral cavity, shifting as the body is turned from side to side, or may be so plentiful as to occupy most of the cavity, thus abolishing this signal. Or an encapsulated collection may suggest cysts heretofore mentioned. Encysted collections are often multiple and associated with free and encysted exudates are often found multiple nodular masses or tumors. These abdomens also give, on palpation, a peculiar doughy sensation, especially over thickenings within the cavity. The "vaulted abdomen" has been thought by some to be characteristic, but a large ovarian cyst looks just as "vaulted" to me. Different percussion notes on the two sides of the upper abdomen is often a helpful sign. A dull or dull-tympanitic note on the right (retracted mesentery and gathered up intestinal coils) with a flat note on the left (where only fluid exists) can rarely be found with other lesions. The mapping out of the rather characteristic sausage-shaped tumor in the upper abdomen with effusion below its level is as near pathognomonic of tubercular peritonitis as any physical sign.

Obvious peristaltic movements often occur.

*The tuberculin test* has been found to be very valuable in a considerable proportion of cases. I have not used it.

*The blood examination* is more apt to help us decide whether or not immediate coeliotomy is demanded than to aid us in diagnosing tubercular peritonitis.

*Sputum* containing bacilli constitutes corroborative evidence in some cases.

*The diazo-reaction* is usually positive. If tapping is done the ascitic fluid may be bloody (not uncommon

in tuberculous cases) and sometimes the bacilli may be demonstrated in cultures or by injecting guinea-pigs.

*Occasional evidences in the diagnosis* are:

1. The induration of the abdominal wall, indicating the involvement of cellular planes in a low grade suppurative process. In the presence of ascites and other physical signs this may serve to determine the diagnosis.

2. Redness about the umbilicus is rather characteristic in suspected cases.

3. Umbilical fistula with evidences of peritoneal inflammation is almost pathognomonic, but is rarely seen. (Acker, two cases.)

4. Thickened tunica vaginalis in boys or men where the vaginal process remains patent has aided in diagnosing a few cases.

Even when strongly suspected the diagnosis can only be made in some instances by an exploratory incision.

#### DIFFERENTIAL DIAGNOSIS.

Cirrhosis of the liver and tuberculous peritonitis have been confused and may co-exist. Age of the patient is somewhat indicative. The absence of hepatic enlargement, of alcoholic history, of enlarged veins on the surface of the abdomen, of hæmorrhagic manifestations, and the presence of some of the more characteristic signs already referred to will aid materially in defining any cases.

*Ovarian cysts* can usually be moved from side to side "en masse," whereas a free tubercular effusion will shift as the patient turns and encapsulated serum will remain fixed. Recently I encountered a large fixed fluid tumor in the abdomen occupying its lower two-thirds. The intestines lay to right and above tumor. Patient



gave tubercular family history, was anemic and emaciated, a febrile, and gestive disturbances were marked. Diazo was negative. Physical examination of chest was negative. Blood examination revealed 11,000 leucocytes, 76 per cent. polymorphonuclears. I halted between two opinions. Exploration revealed a huge ovarian cyst.

*Omental cysts* are usually movable, rarely occupy the pelvis, and almost never affect the general health of the patient in significant degree.

*Mesenteric cysts* are quite stationary, never occupy the pelvis, frequently disappear spontaneously, and are very rare.

Although most of the solid tumors of the abdomen occur singly and tubercular nodules are multiple, we must bear in mind that multiple carcinomatous masses may occasionally be found and with ascites. The characteristic omental roll is often diagnostic. Usually the thought that solid tumors involve one organ definitely, whereas tubercular peritonitis produces a more generalized effect, is of great help. Then, too, the history of the latter is usually more rapid (even when process may be long standing).

The difficulties which may be presented in differentiating an acute form of tuberculous peritonitis from appendicitis, intestinal obstruction, or the rupture of a gastric or duodenal ulcer, are obvious. This is an especially trying situation when we recall that acute appendicitis may be tuberculous, that intestinal obstruction may be caused by tuberculous peritonitis, with adhesions or tumor development, and that the rupture of a caseous mesenteric gland or a tuberculous ulcer of intestine may produce the

clinical picture of perforative peritonitis. The important thing here is to always consider the possibility of tuberculous peritonitis in acute abdominal cases. Then we can use wisely the information given us by symptoms, physical signs, and special analyses, and surprises will be reduced to a minimum. These are an ideal type of cases for diagnosis by the process of exclusion.

#### PROGNOSIS.

Under general and medical treatment about 25 per cent. of cases reported have recovered. It is impossible to say what percentage are cured, for comparatively few recorded cases are reported as having completed five years of good health since their treatment.

Under surgical treatment about 80 per cent. recover, but of these 25 per cent. perish within the first year. In most of these cases the tubercular peritonitis is merely one feature of a general miliary tuberculosis. About 30 per cent. survive the five-year test. Some consider cases cured after six months of good health. I believe that no recovery can be called a cure until five years have elapsed.

The ascitic form and the localized miliary tuberculosis of the peritoneum furnish us with the best material for surgical success. Here I would include those cases in which acutely involved appendix or Fallopian tubes are removed. Thus many times we may eliminate the primary focus of the disease and (in the tubal cases) close the gateway of infection. I would estimate the cures in these classes at 50 per cent., while 10 per cent. is probably a fair expectation in the adhesive or fibrous type. The prognosis in the suppurative form is

doubtful. Where the pus is due to mixed infection an immediate recovery is often followed by a cure. Where the true tuberculous pus is found a more or less generalized tuberculosis usually exists.

Southerland states that "in uncomplicated tuberculous peritonitis the prognosis is good," and where only a tubercular pleurisy exists in addition to the peritonitis we may still expect a cure.

In the caseous or ulcerative forms the prognosis is not good and operative treatment does not seem to improve the statistics materially.

Rapid, violent cases, often apparently hopeless, seem to recover generally, but this may be because perishing cases are not usually reported (Ochsner).

Cases having an apparent traumatic origin usually run a very rapid and fatal course.

#### TREATMENT.

That improvement and cures of tuberculous peritonitis have resulted from general and medical treatment has just been mentioned. That such treatment is warrantable in certain cases presenting no evidences of profound mechanical or chemical influence reflected by the process upon any of the abdominal organs, I will not sweepingly deny, although the majority of cases without symptoms referable to such influences are not diagnosed. The most eloquent recommendation for the systematic application of surgical treatment is quoted from James Tyson (widely and favorably known as a medical clinician): "To treat it (T. P.) medically is to temporize; in other words, there is but one treatment that is likely to lead to satisfactory results and that is surgical." (Syms.)

*Per contra*, Mr. Gordon (surgeon) of Dublin, tells us that surgery has but little to offer these patients and but few triumphs to record.

In our department the important question is, "When shall we treat a case surgically and how?"

1. It may happen that the diagnosis is not clear and here an abdominal section is indicated if this can be performed under ideal aseptic conditions. The mortality of such a procedure can be disregarded when balanced against the importance of making a definite diagnosis. Thus in many cases the abdomen should be opened for diagnostic purposes.

2. Large collections of serum should be evacuated whether free or encapsulated. This indication is often peremptory because of pressure symptoms with or without fever, rise of pulse, and other general symptoms. Here incision is better than tapping or aspiration. Perforations of adherent intestine during aspirations have occurred several times in these cases, more frequently than when tapping has been attempted for other forms of ascites. (I would even eliminate the puncture for diagnostic purposes or for the introduction of oxygen.)

3. When the Fallopian tubes or the appendix are involved or tumors of the intestine can be mapped out in association with probable tuberculous peritonitis, abdominal section is indicated, provided that we are dealing with an average surgical risk. Even when a patient's condition is poor the gravity of the local lesion may demand surgical procedure.

4. Very acute cases make the best and most frequent recoveries if immediately opened. Naturally no case of true or simulated intestinal obstruction would be delayed.



5. Whenever suppurative or caseous foci can be demonstrated they should be evacuated. That such cases, among all those surgically treated, furnish the largest percentage of mortality I will not deny, but notwithstanding the very general recommendation of medical treatment in advanced cases, my own experience and that of many others recorded in literature compel the conclusion that more of such cases will recover if treated surgically than if medical means are used.

Thus we have outlined the indications for abdominal section, the most common form or element of surgical treatment. And perhaps we should add that in view of the increase of cures recorded under surgical treatment that the desire to cure is an indication in the majority of cases, or when important positive contra-indications do not exist.

The impression should not be conveyed that "operation indicated" invariably means "immediate operation." Never have I been more impressed with the importance of treatment preliminary to operation than in some of my cases of tuberculous peritonitis. With a patient so located and environed as to permit careful and scientific observation, we may improve his percentage of chances of recovery several points by the application of highly nutritious diet, regulated water drinking, proper stimulation of a degenerated myocardium, inunctions of a vegetable or animal oil, attention to enteritis or entero-colitis, the administration of iron and fats in proper dosages and the constant recumbence in the open air. Many of these cases are suffering from an auto-intoxication in addition to their tubercular toxemia. Therefore several

days of improved elimination and the exhibition of intestinal antiseptics (not forgetting buttermilk) may materially aid our efforts in their behalf.

The proper moment for operation must be determined by considering studiously every feature of each individual case. If this should invariably be done the surgical records of tuberculous peritonitis will undoubtedly improve.

The *selection of the anesthetic* is a matter of highest importance. If there is no involvement of the lungs or very slight apical involvement nitrous oxide and ether are indicated. If, as is often the case, the pulmonary lesion or lesions are marked, or a renal lesion of importance exists, chloroform should be preferred, unless the myocardial, pericardial, or endocardial conditions contra-indicate its use. Chloroform and ether can wisely be administered in those instances where both cardiac and pulmonary involvement are evident, but are not of such a degree as to forbid operation. Nitrous oxide alone has been used, but as it rarely gives complete muscular relaxation it is not often desirable. A few weakened patients are best operated upon under local anesthetic ( $\frac{1}{2}$  per cent. cocaine) and several brilliant results are reported. The use of intra-spinal injections of cocaine or stovaine may occasionally be warranted. I have not used this measure in these cases.

*Operative Technique.*—The writer prefers a median incision unless expecting to open a localized tubercular abscess. Mayo (W. J.), advises this in females, but prefers a right lateral incision in males because of the frequency of involvement of the appendix. Fluid should be thoroughly

evacuated and some of it collected aseptically for laboratory purposes. The general cavity of the peritoneum should then be thoroughly dried with sponges. If the appendix is thickened or congested and studded with tubercles it should be removed. If it is bound down with adhesions it should be enucleated with extreme care and the surrounding peritoneum protected with unusual diligence as secondary infection is so easily induced and so fatal when started. Moreover, cecal wall is likely to be infiltrated and softened, rendering fecal fistula possible if slightly damaged. Involved tubes and ovaries should be excised and the stump cauterized.

Probably no one class of cases has shown such brilliant results as those in which the tuberculous process was most marked in the female pelvic organs and in which ablations of the appendages have been practised. Tubercular strictures of the intestine may be treated by entero-enterostomy, entero-colostomy, or excision of the involved portion of the intestine. The result of such procedures are not so good as with other types of lesions because the intestinal walls do not always unite satisfactorily.

In the absence of suppurative or caseous foci (which must be evacuated and drained with every possible protection for the general cavity) many operators are now content to close the wound after the proper application of surgical measures outlined above. Others (including the writer) use a copious irrigation of normal saline solution. Washing with boric acid solution and potassium permanganate (1-10,000) has been practised. Iodoform powder has been rubbed into the affected peritoneal surfaces, extensive packing of the

cavity with iodoformized gauze has been done, and iodoform emulsion has been introduced in large quantities. Peroxide of hydrogen has received logical advocacy because it liberates oxygen and because of the wholesale destruction of the bacilli that must necessarily follow its use. Marcy applies bichloride of mercury (1-1,000) with wet sponges all over areas involved, then sponges the cavity dry again and dusts iodoform powder over the peritoneum, or introduces saline solution and leaves it. The rubbing of many or all involved areas of peritoneum with dry sterile gauze has been advocated on account of the hyperemia caused and the beneficent effect supposed to be derived therefrom.

When extensive soft or cobweb adhesions are found among intestinal coils it is my habit to separate them as thoroughly as is possible. This is at variance with the procedures of some. This position seems indicated because we are exposing more peritoneal surface to the air, we are inducing more hyperemia, and we lessen the likelihood or degree of future intestinal stasis. Because I recognize the possibility of encountering softened areas in the walls of the gut and the danger of breaking through and finding great difficulty in applying sutures I invariably omit such attentions when adhesions are old and firm. Whatever separations are done must be undertaken with great care and under the closest scrutiny. In the very acute cases this freeing of adhesions should not be attempted unless obstructive symptoms are present. The possibility of extreme shock developing during such a separation of intestinal coils must be borne in mind. I recall one case



in which this occurred twice and each time I ceased and introduced normal saline solution (115 F.) and waited for the prompt reaction which followed, then continued my work. The third time I desisted with about two-thirds of the separation accomplished.

With this one exception, and considering appendectomy and salpingectomy advisable when indicated, I believe that the less trauma we inflict upon the tuberculous peritoneum the better are our patient's chances for immediate and ultimate recovery.

The searching for areas of intestinal ulceration and their excision or the resection of bowel segments involved has occasionally been advocated (Schener). I have not practiced it. Here it seems best to recall the lowered vitality of the tissues and the extreme likelihood of the development of fecal extravasation and fecal fistula in case sutures fail to hold the edges of intestinal wounds in apposition.

Tubercular masses in the omentum may be excised, although some consider this unnecessary and a number of unfortunate results have been experienced.

Any attack upon the mesenteric glands or other lymph nodes, save where pus demands evacuation, has been demonstrated to be undesirable by the astonishingly bad results reported.

*Drainage.*—In the past this question has caused active discussion. At the present time, however, there seems to be a consensus of opinion that drainage should never be employed unless it is positively indicated by abscess, fecal fistula existing or threatened, or where uncontrollable oozing persists and requires packing. It has been demonstrated that fecal fistula follows in a

considerable proportion of non-suppurative cases that have been drained. Moreover the drainage sinus is invariably sluggish and requires months or years for closing, or never completely heals. One case which I drained (suppurative) maintained a sinus for a year. In a non-suppurative case the healing required seven months. Dowd closed the abdomen without drainage in a case where he removed appendix and evacuated tubercular abscess of the mesentery, and his patient made an excellent recovery.

Why simple laparotomy should arrest or cure any of the cases of tuberculous peritonitis has been widely discussed and concerning this question many theories have been advanced. Certain it is that many cases have seemed to recover after simple incision and evacuation of serum. Here are some of the theories in the order in which they appeal to the writer:

1. Evacuation of toxins contained in serous or sero-sanguinous exudate.
2. Hyperemia caused by relief of pressure and handling of peritoneum.
3. Contact of tubercle bearing surfaces with the oxygen of the air.
4. Admission of light into the peritoneal cavity.
5. Cell proliferation due to inflammatory reaction subsequent to operation causing encapsulation of tubercular foci.

6. Fluid may act as food for bacilli and lessens the possibility of phagocytic action. Removing it sweeps away a double element of danger.

*Accidents* incident to operation—

1. Punctures of intestine during aspiration have been referred to.
2. Softened intestine may be perforated by the investigating finger or during the breaking up of adhesions. Fecal fistula may develop where such

perforations are sutured, and drainage seems necessary wherever such suturing is done.

Such fecal fistula are notoriously difficult of closure however remote the effort from the date of primary procedure.

3. Abscess formation (intra-peritoneal) and generalized peritonitis from secondary infection occurs more frequently than in the average laparotomy showing how susceptible the peritoneum becomes after tuberculous invasion.

4. Abscess formation between the layers of abdominal wall is occasional and these cavities heal very tardily.

5. Separation of skin edges and subcutaneous areola tissue after apparent healing of wound and removal of sutures occurs rather frequently. This has been observed in three of my cases.

*Oxygen.*—The introduction of oxygen into the tuberculous peritoneal cavity has been suggested and used with some apparent success, even in cases for which other forms of surgical treatment seemed inadvisable (Schulze, Meyer, McGlinn, Bainbridge and Schmidt have used this treatment). The gas has been introduced through a canula after aspirating whatever fluid could be withdrawn, or more frequently an incision has been made, fluid evacuated, diagnosis confirmed, and the oxygen introduced by canula or rubber tube. When the cavity is filled with the gas it is retained by a stop-cock and packing, or by a purse string about rubber tube. Some operators leave it in the cavity but a few minutes, empty the cavity, and refill it. Others leave the first supply within the peritoneum indefinitely.

Schulze reports seven cases cured

by the introduction of oxygen introduced through the aspirating trocar. In five cases one injection was used. In two cases a second injection seemed to be indicated. In about 50 per cent. of all cases symptoms of a mild peritoneal irritation have followed the introduction of oxygen. The procedure has been invariably well borne by patients. All reported cases have recovered. How many have remained in good health for five years is a question.

*Post-operative Treatment.*—As soon as is possible after the abdominal section is performed the active adoption of anti-tubercular measures, general and medical, should be begun. As quickly as may safely be these patients should be discharged from the hospital and referred back to their physicians with the warning that the treatment has only been initiated, and the advice that general and medical treatment for the cure of tuberculosis should be applied continuously for not less than two years. Meanwhile the surgeon should be permitted to examine them once in six weeks. Recurrences are not very uncommon, yet if treated promptly they yield even more readily than primary processes.

Local applications to the surface of the abdomen of iodoformized oil, iodine, ichthyol, guiacol, and colloidal silver have been used with apparent benefit post-operatively.

Enemata of creosote emulsion have been advised.

Success has also been attributed to the exposure of the abdomen to the X-ray both after operation and in cases not subjected to surgical treatment.

In at least one case the patient lay out-of-doors throughout the day for several weeks, with the abdominal sur-



face exposed to the sun's rays (Perdue). This was a desperately sick patient who had been subjected to operation. A satisfactory result is recorded.

*Post-operative observation* of cases of tuberculous peritonitis seems to be especially difficult either because many of the patients belong to a shifting

class or because a majority of the cases do well immediately after their treatment. Long continued observation will aid us in estimating more intelligently the value of operative treatment and efforts to secure the co-operation of our patients in completing our records should therefore be untiring.

280 Park Place, Brooklyn, N. Y.

(Discussion by Members of the Brooklyn Surgical Society. See Table of Contents.)

## COLLES'S FRACTURE.\*

By WILLIAM H. RANKIN, M.D.,

BROOKLYN, NEW YORK.

BEFORE the discovery of the X-ray we knew a fracture of the head of the bone might be one of several varieties, but now we may learn from the shadowgraph the precise kind and degree of injury with which we have to deal. Not only that, but the shadowgraph taken after we have set the fracture reveals to us any errors in replacing the fragments. It would seem either that we are not taking advantage of its guidance, or the profession has not been sufficiently impressed with the desirability of making use of it.

The surgical anatomy of the wrist-joint is so well known to you that a brief reference to the different structures will suffice. At the lower end of the radius the compact structure of the shaft widens and deepens at the terminal  $1\frac{1}{2}$  inches into the soft spongy cancellous tissue of the head of the bone. The rim of the epiphyseal attachment in front and behind has an eminence for the insertion of the very strong ligaments that join the radius to the bones of the hand. On the outer border of the head of the radius is a projection of the firm

bone to partly envelop the carpus. On the inner surface is the sigmoid cavity to receive the head of the ulna, and to which it is attached by fibrocartilage and ligaments.

It is to be remembered that the head of the ulna does not form part of the wrist, but projects beyond the joint, partly enveloping and protecting it on the ulnar side. The strong anterior ligament spreads out over the wrist in front with attachments to both the first and second row of carpal bones; thus the first row is attached by this ligament to the head of the radius and to the second row of the carpus, being so placed as to act as a fulcrum to the level of the hand or the radius. This is also true of the arrangement of the ligament on the back of the wrist-joint.

The anterior lip of the rim of the head of the radius projects quite prominently to the front and can be easily identified. The posterior lip is on a plane with the posterior surface of the radius. The superior surface of the bone is grooved for the tendons of the thumb. The supinator longus is the only muscle inserted in the head of the radius at

\* Abstract of paper read before the Brooklyn Surgical Society.

the base of the styloid process. The flexor and extensor tendons of the hand and digits pass over the wrist anteriorly and posteriorly respectively, but no muscles are inserted into any of the bony prominences about the wrist-joint that materially influence the reposition of the parts concerned in this fracture. The question of muscular contraction or muscular tension plays a very inferior rôle in this injury.

We have, then, as bony prominences or landmarks the styloid

slipping or falling and quickly throwing the hand forward to save oneself from injury. The exception to this manner of injury is where the head of the bone is struck a violent blow, as in cranking an automobile.

The mechanism of the ordinary fracture of the lower end of the radius is exceedingly interesting. In falling, we extend the hand; at the moment of contact with the ground the anterior ligament is made exceedingly taut. If the force of the fall is not yet spent, either the ligament



COMMUNUTED FRACTURE OF LOWER END OF RADIUS.

processes (radius and ulna), the head of the ulna, the anterior lip of the radius, the thenar and hypothenar eminences of the hand. In the normal wrist the styloid process of the radius is on a lower plane than the corresponding process of the ulna. The base of the thenar eminence is a little lower than the hypothenar. We also note the head of the ulna prominent posteriorly, and the curve in the front of the radius from the enlargement at the head of the bone. This curve in the bone is to be kept in mind in examining a Colles's fracture.

This fracture is one of the most frequent with which we have to deal, and is caused almost always by

must give way, the carpal bones break, or the lower end of the radius fracture.

As we have pointed out, the strong anterior ligament is attached above to the projecting anterior lip of the radius, and below to the first and second row of carpal bones. So then we have the principle of leverage applied with the power at the hand and second row of the carpus, and the scaphoid and semilunar the fulcrum, and the weight at the anterior lip of the radius.

By classifying the fractures from a correct interpretation of the X-ray plates they may be divided into three varieties:

*First.*—The linear fracture into the



shaft of the radius caused by the weight of the body being transmitted directly through the bone.

*Second.*—The separation of the epiphysis and transverse fracture with more or less displacement backwards and outwards caused by leverage applied through the anterior ligament directing the force at the anterior lip of the radius.

*Third.*—The comminuted fracture, in which the anterior ligament and perpendicular forces have had in

measure the styloid process. In cases of fracture the styloid of the radius is on an even plane with that of the ulna or even slightly higher. The head of the ulna, so prominent posteriorly, disappears from behind and appears in front. The normal curve in front of the radius is lessened, and a very pronounced curve or depression appears on the dorsal surface above the line of fracture. If we roll a thermometer case along the bone we elicit a sharp pain



LINEAR FRACTURE INTO THE SHAFT OF THE RADIUS.

addition the shattering force of the uneven contact of the hand and the horizontal mass which it strikes.

In the majority of cases, as can be expected, the soft, spongy tissue of the fragments is more or less impacted. The effect of the leverage of the hand and the vertical force through the shaft of the radius is to carry the lower fragment more or less backward, the upper fragment downward and forward, thus throwing the lower fragment outward, slightly rotating it inward and backward.

*Diagnosis.*—After first making inquiry as to previous injury, if any, and comparing the injured wrist with its fellow of the other arm, we

at the point of impaction. The thenar eminence is more prominent. The wrist is broadened because of (1) the rupture of the radio-ulnar ligaments and separation of the fibrocartilage from one or other of its attachments, and (2) from the comminution of the lower fragment. The latter is carried somewhat, but seldom, very far backward, and the lower end of the upper fragment bulges somewhat in front. The hand is abducted and the articular surfaces look downward and forward.

*Treatment.*—It is my belief that every Colles's fracture should be reduced under some general anesthetic. We may say to the feeble and aged that little in the way of

reducing deformity can be done without an anesthetic, and we should say to the strong and the vigorous that under an anesthetic we can correct the deformity far better and restore the hand to usefulness in much less time.

In the muscular arm with impacted fragments more or less complete relaxation of the muscle is necessary to proper treatment. Complete ether anesthesia is desirable, but ethyl chloride will give us a fair opportunity to accomplish our purpose.

pushed well back into the sigmoid cavity of the radius and retained in this position until the ligaments and fibro-cartilage have been reunited.

In a simple transverse fracture across the head of the radius the lower fragment should be brought back to its normal position end to end with the upper fragment, and then carried a little forward and inward. With a comminuted fracture the same mechanism applies, but lateral pressure should be applied while flexing and extending the hand to bring



SEPARATION OF THE LOWER EPIPHYSIS OF THE RADIUS.

If we have a fracture through the base of the styloid or an external and oblique one such as the so-called "automobile" fracture, the deformity is not very great, apart from the abduction of the wrist.

The writer would lay down as a fixed rule that the deformity should be slightly over-corrected. The tendency in Colles's fracture is to have some deformity persist, partly because the cancellous tissue has been crushed and partly because the comminution of the lower fragment widens and pushes upward and outward the head of the bone.

The head of the ulna, which has been displaced forward, must be

the fragments into place as nearly as possible. This will reduce to the minimum the abnormal widening of the wrist.

The writer's method in doing this is to grasp the patient's hand over the thumb, pressing it well down on its thenar eminence, then carry the hand into position by extreme adduction, next rotate outward, and then carry the hand into extreme extension to unlock the fragments. With the hand in the position of extreme adduction, rotate the lower fragment forward, then swing the hand into the position of extreme flexion. This accomplishes a considerable measure of reduction, but rarely completes it.



I now measure the styloid processes to make sure that the radial styloid is on a sufficiently lower plane as compared with the ulna. I next mold the fragments with my thumbs, making pressure and counter-pressure until I have the head of the bone slightly over-corrected anteriorly and laterally toward the head of the ulna. The head of the ulna is then carried backward in an over-corrected position in the sigmoid fossa. Plaster-of-paris splints anterior and posterior are then applied after the method of Stimson. A small sand bag is frequently of considerable assistance, but, wanting that, we can use the prominence of the pisiform bone on one's hand to advantage.

I would like to lay emphasis on the fact that the fragments are sometimes quite freely movable, and I would further emphasize the fact that when the bones are replaced in their corrected position, it is necessary to have some form of splint to maintain that position. I do not know if it so much matters what splint you use, whether it be Roser's, Nelaton's, Carr's, or what not, so long as it keeps the fragments in position. Personally, I like Stimson's splint of plaster-of-paris for the following reasons:

*First.*—It can be molded to fit the

bony prominences and hence avoid undue pressure on any point. It is a comfortable splint.

*Second.*—It makes it possible to hold the head of the ulna in good position.

*Third.*—It allows you to make some lateral pressure when that is desirable.

*Fourth.*—It is a convenient way to retain the hand in dorsal extension, the position of strength, and so extend to their full length the strong flexor muscle during the period of splint rest for the fractured bones.

*Fifth.*—It needs but little padding, fits closely, and holds firmly the fragments in position.

As to the after-treatment, I believe that the joint should be kept at rest until the ligaments and fragments are firmly fixed or united.

The splint allows of free movement of the fingers and tendons in their tendon sheaths, and so prevents adhesions. After a few days the patient should be encouraged to use the fingers freely. The fracture should be inspected frequently, the arms bathed with alcohol, zinc ointment rubbed on the skin, and the splint replaced.

Finally, heat and massage with passive motion assist materially in restoring the hand to usefulness.

(Discussion by Members of the Brooklyn Surgical Society. See Table of Contents.)

# RUPTURE OF THE LIVER, WITH REPORT OF A RECENT CASE.

By WALTER A. SHERWOOD, M.D.,

Surgeon to the Methodist Episcopal Hospital.  
BROOKLYN, N. Y.

**S**UBCUTANEOUS injuries occur more frequently in the liver than in any of the other solid abdominal viscera. Tilton states that in 365 cases of injury to the solid viscera, it was found that the liver was involved in 189 cases, while the remaining 176 cases included the spleen, kidney and pancreas together. Although these statistics include open wounds of the liver from stab and gunshot injuries, they also represent quite accurately the comparative proportion of subcutaneous wounds with which these observations have to deal exclusively.

Rupture of the liver may occur as a single lesion or it may happen in conjunction with injuries to other organs; it may be the result of a simple kick, blow or fall, but more particularly to crushing accidents, the most frequent source of the cases being in those who have been run over by a vehicle of heavy weight or in those who have been pinioned and crushed between the buffers of cars. Though the majority of cases of rupture are due to direct violence, a number have been reported in which the injury occurred by "contra-coup," in one instance the patient sustaining a fall on his head with the result that in addition to a fracture of the skull he was also found to have a rupture of the liver, hemorrhage from which was the cause of death. In 151 cases collected by Heinzelman, he states that in one-third of these the rupture resulted from indirect violence. In con-

tusions of the abdomen several factors help to make the liver particularly susceptible to injury; the organ is heavy, non-resilient, only very slightly movable, and, most important of all, it lies firmly wedged between the ribs and vertebral column. The process of digestion increases its vascularity and therefore its size, while chronic alcoholism, syphilis and malarial infection render it more friable. (Tilton.) In the presence of any one of these favoring conditions a slight traumatism may produce a rupture of considerable extent, and cases have been reported in which the rupture was apparently of spontaneous origin, one case being cited by Chiari of a man with a carcinomatous liver, who died from a rupture of that organ as the result of a simple effort to turn over in bed. In cases of liver rupture the division of the liver tissue may be sharp and clean cut, or, as more frequently happens, there is extensive laceration with uneven jagged edges. In some instances liver fragments of considerable size have been found in some remote part of the abdominal cavity, completely detached from the organ itself. The right lobe is by far the most frequent site of injury, being involved six times more often than the left lobe, while it is stated that the upper or convex surface is injured twice as often as the lower concave surface.

*Symptomology and Diagnosis.*—A rupture of the liver may be so slight as to give practically no symptoms,



and no doubt such cases occur with comparative frequency and escape recognition as such. The following is a brief resumé of the symptoms and diagnostic signs, any one of which may or may not be present:

1. Ecchymosis of the skin overlying the region of the liver.

2. A fracture of one or more ribs on the right side may draw attention to the liver as a possible site of injury.

3. Localized pain and tenderness intensified on pressure.

4. Pain radiating to the right shoulder is suggestive, having been observed in a considerable number of cases.

5. The signs of intra-abdominal hemorrhage, both local and constitutional; this is by far the most constant and important symptom.

6. A flat percussion note in the flank or right iliac fossa, due to the gravitation of accumulated blood.

7. Rigidity of the abdominal muscles is an almost constant symptom and may be either confined to the right side or general.

8. Vomiting from peritoneal irritation may be present.

9. If death does not occur from hemorrhage, jaundice may develop on the third or fourth day, Ludlow having recorded it in 24 out of 267 cases studied.

10. The escape of infected blood or bile may give rise to a localized or general septic peritonitis and still later a liver abscess may develop.

It has been almost conclusively proven that the majority of the so-called primary abscesses of the liver are the result of traumatism.

In a case of liver abscess reported by the writer in 1907, the abscess developed several months after the pa-

tient had sustained an injury to the right side of his thorax and abdomen, being caught and crushed between the swinging boom of a sailboat and its deck-rail. In this case it seemed most probable that there had been an unrecognized laceration of the liver which later became the site of an infection and abscess, for which he was successfully operated on. (LONG ISLAND MEDICAL JOURNAL, April, 1907.)

The most important factors in the determination of a diagnosis are:

1. The nature of the injury.

2. Increasing signs of intra-abdominal hemorrhage.

3. The presence of muscular rigidity, most marked in the right hypochondrium.

In severe injuries, with extensive bleeding, it is sometimes difficult to differentiate this condition from the so-called shock of traumatism, with which it is most apt to be confounded.

*Prognosis.*—Concerning the prognosis there are two serious features:

*First.*—The amount of hemorrhage which, if extensive, will in most cases prove fatal in the non-operated cases within the twenty-four-hour limit.

*Second.*—The later danger of infection and sepsis, which result either from infected blood from the portal circulation or infected bile from the lacerated biliary ducts.

Most of the rapidly fatal cases die from shock, hemorrhage and associated injuries of other organs.

The mortality statistics vary according to different observers. Elder states that his studies show a mortality of 78.1 per cent, while Terrier and Auvray, in 11 cases operated on, gave their mortality as only 37.5 per cent.

In the reports of 267 cases of injury to the liver collected by Mayer there were 135 contused wounds; of these 117 were fatal. Tilton from 1895 to 1905 collected the records of 12 cases of liver rupture from several New York hospitals with a mortality of 62.5 per cent. These figures of Tilton probably represent the most recent and reliable statistics so far as mortality is concerned.

Although there is still much to be hoped for in lowering the mortality rate of this condition, it is interesting in comparison to note the brief amount of space which is given to the consideration of rupture of the liver in the standard surgical text-books of ten or fifteen years ago; one simply mentions the condition in a few lines and ends with the statement that it is invariably fatal.

*Treatment.*—Inasmuch as the danger of immediate death is greatest from hemorrhage, early opening of the abdomen is not only justified but imperative in all cases in which the diagnosis is reasonably certain; in a very few selected cases in which the diagnosis is doubtful, in the positive absence of hemorrhage, shock and muscular rigidity, the expectant plan of treatment under the proper facilities for constant and careful surgical observation, may be permissible, and many cases of slight injury have no doubt recovered without operative intervention. Such a plan, however, is only advisable in the most carefully selected instances and not safe in the vast majority of cases.

The purpose of opening the abdomen is for the control of hemorrhage and the establishment of drainage to prevent later infection. The means that may be mentioned for the control of hemorrhage are as follows:

1. Suture of the wound in the liver.
2. Ligation of bleeding vessels.
3. Pressure.
4. The actual cautery.
5. Gauze packing.

Of these, deep sutures placed in the liver substance and gauze packing are the most reliable and generally used. The gauze packing not only serves to control hemorrhage but also answers the requirements for drainage in the prevention of later infection.

In order to expose wounds on the convexity of the liver, it may in some instances be necessary to divide the lower ribs or cut the suspensory ligament.

That many cases of rupture of the liver have, in the last few years been saved by operation, which would otherwise have died from hemorrhage or later complications, is an unquestionable fact.

In three of the four cases of ruptured liver which the writer has had an opportunity to observe, the wound in the liver had its beginning at or involved some portion of the free edge or anterior border of the organ. In all of the cases found recorded in the literature, in which the anatomical relations of the lesion were described or illustrated, some portion of the free edge of the liver was involved.

Because of the somewhat peculiar situation, character and extent of the rupture in a case recently under the writer's care, together with some features of interest in the history and treatment, the following case is herewith reported.

E. C., aged 6, was admitted to the writer's service at the Methodist Hospital, late in the afternoon of October 9, 1909.

A short time previously, while at



play in the street, the patient had been run into and knocked down by a passing wagon. There was some doubt as to whether any of the wagon wheels had passed over his body, and the patient himself was unable to state this fact. He then seemed to be suffering simply from contusions and mild shock, and was brought to the hospital for the purpose of observation. It was reported by the house surgeon, that he showed no evidence of serious injury and his

of the abdomen and right side of the thorax; his skin was pale and his face had the expression of pain. Respiration was embarrassed and it was noticed that his right chest did not expand as fully as the left; his temperature was 99 degrees F. and the pulse rate 130. Examination of the abdomen on inspection revealed an appearance of fullness in the right upper quadrant; the lower half of the abdomen was retracted. The patient was unusually sensitive to



SUPERIOR SURFACE OF THE LIVER, SHOWING STELLATE RUPTURE AT EXTREME LEFT OF PICTURE.

condition was in every way so satisfactory, that it was not considered necessary for the writer to see him that evening.

During the night, however, he commenced to complain of pain in the upper part of his abdomen, and a sudden change in his general condition caused the house surgeon to request me to see him early on the following morning, at which time these observations were made:

The patient was lying on his left side and an attempt to place him in the dorsal position was accompanied by an outcry of pain which was referred to the right upper quadrant

pressure, especially in the right hypochondrium; muscular rigidity was present on both sides, although most pronounced in the right upper quadrant. Percussion revealed flatness in the left flank, the remainder of the abdomen being tympanitic. A tentative diagnosis of ruptured liver with increasing hemorrhage was made and the patient taken to the operating room for immediate exploratory laparotomy. Through a four-inch incision, to the right of the rectus muscle, the peritoneal cavity was opened and found to contain a large quantity of both fluid and clotted blood, which was sponged away. The

free edge of the liver was seen and palpated and found to be intact, although situated considerably below the free border of the ribs. On palpating the convex surface of the liver, the examining hand encountered a lacerated wound, large enough to admit the tips of two fingers, situated to the right of and in front of the center of the lobe. On examining the under surface of the

though moderately and they were quickly packed with gauze strips, those in the upper half of the wound being led over the convex surface of the liver to the upper angle of the incision, while those which were used to tampon the lower half of the laceration were brought out through a counter opening made in the flank.

These gauze tampons were allowed to remain in situ for four days and



UNDER SURFACE OF LIVER, SHOWING STELLATE RUPTURE.

organ, in a similar position, was found a larger lacerated opening of sufficient size to admit four fingers of the hand. These two wounds communicated so that we had to deal with a complete through and through lacerated wound which had some characteristics of a punctured wound as if the organ had been transfixed by a broken or floating rib; further examination failed to reveal any fracture and the position of the wound seemed to exclude the possibility of puncture by a floating rib. Both wounds were bleeding steadily

on each succeeding day were removed one strip at a time until there seemed to be no further indication for drainage. For the first few days following operation the condition of the patient was serious and uncertain; the pulse rate was high and the temperature variable. At no time, however, was there any jaundice or evidence of peritonitis, but there was marked apathy and a rapid loss of flesh. The wound healing was tedious and complicated by the persistence of a sinus which discharged considerable bile stained necrotic



material. The liver remained large and tender to pressure and during the fourth week of convalescence, pain, a rise in temperature and increased tenderness suggested the possibility of a subphrenic or hepatic abscess. With the use of the ice-coil, however, these symptoms subsided without operative intervention, and on November 28th, seven weeks after the accident the patient was discharged from the hospital with both wounds healed and in good general condition. Ten days later he was readmitted with a return of temperature, pain in the right hypochondrium and local tenderness. These symptoms again subsided under the use of the ice-coil, within a few days, since which time he has remained perfectly well. He has had no return of temperature or

pain, has gained rapidly in weight and is now in excellent general condition. A recent examination revealed nothing abnormal; the wounds are entirely healed, there is no point of tenderness and the liver has regained its normal size; the patient's appearance and condition are in every way satisfactory and sufficient time has elapsed since the accident to make the permanency of a good result, without sequelæ, reasonably certain.

NOTE.—For the statistics, and much of the information on the subject of rupture of the liver contained in this report, the writer is indebted to Moynihan's work on Abdominal Operations and an article by Tilton, which was published in the *Annals of Surgery*, January, 1905.

## LONG ISLAND MEDICAL JOURNAL

A Forum for the Discussion of all Topics involving the Medical Profession and especially that of Long Island.

EDITOR-IN-CHIEF

PAUL MONROE PILCHER, A.M., M.D.

ASSOCIATE EDITOR

JAMES MCFARLANE WINFIELD, M.D.

EDITORIAL OFFICE:

145 GATES AVENUE, BROOKLYN, N. Y.

Further Information on advertising page 3

NOVEMBER, 1910.

### WHOOPIING COUGH A MUCH NEGLECTED DISEASE.

IN reviewing the vital statistics of New York State for the month of August, 1910, some very interesting facts are brought to light. The number of cases of communicable diseases showed that the new cases of tuberculosis number 3,375, diphtheria and croup 1,663, scarlet fever 688, measles 883, typhoid fever 1,203. Of the acute diseases, diphtheria showed 128 deaths, scarlet fever 36 deaths, measles 47 deaths, and typhoid fever 134 deaths.

Aside from the cases of cancer and deaths due to diabetes under the heading of general diseases, there is only one other item that attracts our attention, and that is whooping cough, with a total of 102 deaths out of a grand total of 11,998 deaths from all causes during the month of August. Is it not a remarkable thing that this disease, which is probably one of the most contagious we have to deal with, as well as the most difficult to control, is considered as a necessary evil? It is feared so little by the general public that they do not take any precautions, as a rule, to prevent the spread of the disease in

their neighborhood; and the statistics of the month show that there were more deaths from whooping cough during the month of August than from measles, small pox, scarlet fever, influenza and rickets taken together. There were almost as many deaths from whooping cough, as there were from typhoid fever and dysentery. Is it not time that some attention was given to the control of this disease? Should it not be reported as carefully as scarlet fever and measles?

It is probable that the deaths from whooping cough are mostly due to carelessness, and if careful therapeutic measures were used, the mortality rate could be greatly lessened. It seems to the writer that the pediatricists should give more attention to this disease, and by their example influence the general practitioner in his care of these cases. The public should know that there is a real danger from whooping cough. A few opinions have been expressed by some of our members in the following editorial notes.

### ISOLATION AND PREVENTION OF WHOOPING COUGH.

IT is perhaps unfortunate that the unusual attracts more interest than the familiar and so the newer and more mysterious conditions receive more of the attention of the investigator and writer than the old and common ones. Our old knowledge about the every-day disease needs to be restated and emphasized at times.

There are two chief reasons why the isolation and thus the prevention of the spread of whooping cough is not more efficiently carried out: one, that, like measles, its highest con-



tagiousness is in the period before even a presumptive diagnosis can be made, in this case sometimes several weeks; the other, that it is to the interest of the patient to be out-of-doors just as much of the time as possible—in a usual uncomplicated case—through a disease of protracted duration, and thus his individual interest conflicts with his duty to the public more than is the case in the other infectious diseases. Among the other reasons is its assumed innocuousness in the minds of the laity and, to some extent, of the general practitioner, though any work on pediatrics will show that the specialist is not blind to its importance.

While there are other important complications causing the mortality of whooping cough, the most important is pneumonia and the mortality is *very* much higher in infancy, worse of course among the poorly nourished, than in older children. This leads to two suggestions in management; that infants should be guarded with the utmost care from this infection, and that the possibility of pneumonia should be constantly kept in mind and the patient kept under medical supervision to avoid this.

Considering the gravity of the condition it seems highly improper that, if I mistake not, there is no hospital in this city where a sufferer from this disease will be received and cared for.

The following facts should be impressed on the general practitioner and through him on the lay public: that whooping cough is a serious disease with a high mortality; that, while its course can probably not be shortened, its severity can be much modified and complications avoided by medical and hygienic management,

thus reducing the mortality; and, most important, that all children, but especially those under two years of age, should be carefully protected from exposure to it.

*Walter D. Ludlum.*

#### A NOTE ON THE MORTALITY FROM WHOOPING COUGH.

THE fact that few cases of whooping cough are reported makes a record of the mortality statistics very uncertain. For example, in July, 1910, there were 140 cases reported to the New York City Health Department, and 37 deaths from this disease occurred during the month, which gives a mortality of 26.4 per cent. of the cases reported. Of course, this is an absurdity.

If we take December, the report for December, 1909, we find that there were 277 cases reported, with 12 deaths; or a mortality of 4.3 per cent. It would be interesting to compare the deaths from this disease in 1909 and 1904 or 1906 before the establishment of the Department of School Hygiene. In 1903 there were 324 deaths from whooping cough; in 1909 there were 197 deaths from whooping cough. It might be a fair question to ask whether the regular school inspection has influenced this diminution in the death rate.

*Elias H. Bartley*

#### THE REMOTE MORTALITY FROM PERTUSSIS.

THE mortality returns are constantly emphasizing what has been recognized by pediatricists for a long time—that pertussis is an important factor in the mortality of young children. The laity are proverbial in their neglectful attitude to-

ward the disease and they are not alone. Many departments of health failed to recognize it as a reportable disease and many physicians are only too willing to accept the view of the unknowing public—that it is a necessary and trifling disease.

And much as the mortality returns tell us, they do not tell all. It is not the immediate results of the disease that are most important, although their consequences must not be forgotten. It is not the first trimester following the disease that exhibits sequelæ that are most destructive to life, nor the second trimester. But it is the third and the fourth; the last six months of the year following an attack of pertussis. More cases of tuberculosis follow an attack of pertussis than of any other infectious disease. The problem of tuberculosis in children is closely associated with the prevalence of pertussis and the inadequate control and treatment of the disease. If every child who suffered an attack of pertussis was carefully examined and re-examined at stated intervals after convalescence, many incipient cases of tuberculosis would be detected and become amenable to proper supervision. A considerable part of the mortality from tuberculosis is directly due to pertussis.

Observing pediatricists are learning more and more to fear the remote results of pertussis rather than the more immediate sequelæ. Broncho-pneumonia and the others are easy of control while the child is under supervision for the primary disease. But when special

supervision is relaxed and the child is considered "well," there is a lurking danger which finally claims many unnecessary victims—that danger is tuberculosis.

*Le Grand Kerr, M.D.*

#### HOSPITAL ACCOMMODATIONS NECESSARY FOR THE CARE OF WHOOPING COUGH.

**P**ERTUSSIS is truly a disease to be feared both by physicians and parent. The many children dying yearly of pneumonia in the winter, and diarrheal diseases in the summer, both complications of whooping cough, are sad reminders of the lack of education on the part of parents and the seeming lack of care, many times, on the physician's part. Waiting rooms of dispensaries should be watched by an attendant and whooping cough cases reported. We physicians who have vainly sought to have a pneumonia case admitted to a hospital, which case was complicated by pertussis, all remember too well the difficulty we encountered. There should be rooms in every hospital, or entire wards if necessity arose, in which to care for cases of pertussis. Parents should be educated to the fact that whooping cough is not the simple easy, anyday disease that they think it is, and further, that children do *not have* to get the disease, and it is usually due to carelessness when the disease is contracted.

*Theron W. Kilmer.*



## MEDICAL NEWS.

Edited by JAMES M. WINFIELD, M.D.

THE THIRTY-EIGHTH REGULAR MEETING OF THE ASSOCIATED PHYSICIANS OF LONG ISLAND was held at Oyster Bay, Saturday, October 15, 1910. A full report of this meeting, together with the address delivered by the Hon. Theodore Roosevelt and the papers read at the meeting, will appear in the December number of the LONG ISLAND MEDICAL JOURNAL.

SUFFOLK COUNTY MEDICAL SOCIETY held its annual meeting at Riverhead, Thursday, October 27, 1910.

The program consisted of the President's Address, a paper by Dr. A. T. Bristow, of Brooklyn, entitled "Co-operation in Medicine," and a report of the Committee on Revision of Fees, by Dr. W. B. Savage, of Islip.

The officers of the Society are President, Dr. S. B. Allen; Vice-President, Dr. W. A. Hulse; Secretary, Dr. Frank Overton; Treasurer, Dr. B. D. Skinner; Censors, Drs. W. N. Barnhardt, Lawrence Coffin and F. E. Benjamin.

ANNUAL MEETING OF THE SECOND DISTRICT BRANCH.—The Fourth Annual Meeting of the Second District Branch of the Medical Society of the State of New York was held on Friday, October 21, 1910, at the Staten Island Club, New Brighton, Staten Island. Following the business meeting and annual election of officers there was a scientific session.

The following papers were read:

"Twenty-four, forty-eight, and seventy-two Hour Pneumonias in Children." By Le Grand Kerr, M.D.

"The General Practitioner and Pulmonary Tuberculosis." By A. Jacobi, M.D.

"The Work of a Country Health Officer." By W. A. Baker, M.D.

"Cæsarean Section." By W. Bryan, M.D.

THE WILLIAMSBURG HOSPITAL has made an appeal for funds to meet a current deficit, and also what is even

more important, to make some urgent repairs and improvements in the hospital building at Bedford Avenue and South Third Street.

The special finance committee of the board of directors, consisting of James H. Post, chairman; Jacob Dangler and William H. Vogel, appointed to take in hand this immediate and important work, report that sufficient interest has been already aroused to warrant putting the repair work in hand at once. While the entire sum needed has by no means been raised and many of the larger sums pledged are contingent on the raising of the entire amount necessary, yet the response has been from so many different individuals in Williamsburg, both those with large interests and especially those with smaller ones, that the outlook is most encouraging. It is particularly gratifying to have all classes of Williamsburg citizens show their appreciation of the work of this institution of their district, and it is especially desired that every one should contribute in accordance with his or her means to make the support thoroughly representative.

BETTER CARE FOR SCHOOL CHILDREN.—The common drinking cup has been banished from the public schools of this city. While great care has recently been exercised in regard to the teeth of the children not so much has been directed to caring for the eyes and this year the following instructions will be pasted in each book:

"Never read in bad light. Always hold your head up when you read. Your eyes are worth more than any book to you. Hold your book about fourteen inches from your face. Let the light come from behind or over your left shoulder. Your safety and success depend on your eyes; take care of them. Rest your eyes by looking away from the book every few moments. Avoid books or papers printed indistinctly or in small

type. Never read with the sun shining directly on the book. Wash your eyes night and morning with pure water. Be sure that the light is clear and good. Never face the light in reading."

Dr. Maxwell, superintendent of public instruction, who has just returned from Europe, where he made a study of schools, found the German school far in advance of ours as regards cleanliness and neatness of both rooms and pupils.

**MORTGAGE ON ACADEMY OF MEDICINE.**—The property of the New York Academy of Medicine at 17-21 West Forty-third Street, has been mortgaged to the Farmers' Loan and Trust Company for \$220,000 for a period of three years. The academy recently acquired the adjoining property and the abutting house on Forty-fourth Street in order to enlarge its building.

**AUTO-AMBULANCE SERVICE FOR INSANITY CASES.**—For the first time in the history of the hospital an automobile ambulance service for the handling of cases for the psychopathic ward has been installed at Bellevue Hospital. Hitherto insane patients have been brought to the hospital in patrol wagons by the police, but henceforth the police will have nothing to do with the handling of such cases. Two trained nurses will go out with the ambulance on each call. This innovation has been made at the suggestion of Dr. Minas S. Gregory, who has been in charge of the insane department at Bellevue for the past nine years.

**HARVEY SOCIETY LECTURES.**—The sixth course of Harvey Society Lectures under the patronage of the New York Academy of Medicine began October 15th, when Prof. Hans Chiari of the University of Strasburg, Germany, delivered a lecture on "Significance of Pathologic Autopsies and Other Pathologic-Anatomic Investigations." The succeeding lectures are as follows:

November 5th: Prof. W. E. Castle,

Harvard University, "Unit Characters in Heredity."

November 19th: Prof. Jacques Loeb, Rockefeller Institute for Medical Research, "The Prevention of Toxic Action of Various Agencies Through the Prevention of Oxidation in the Cell."

December 10th: Prof. Harvey W. Cushing, Johns Hopkins University, "Certain Clinical Aspects of Dyspituitarism."

January 14th: Prof. Arthur R. Cushny, University of London, "Therapeutics of Digitalis."

February 14th: Thomas B. Osborne, Connecticut State Agricultural Experiment Station, "The Chemistry of the Proteins."

March 25th: Prof. H. Gideon Wells, University of Chicago, "Calcification and Ossification."

**EDDYISM IN BERLIN.**—Notwithstanding all the exposures which have repeatedly appeared in the daily papers and the statements of physicians to individuals, it has proved impossible to stamp out Eddyism in Berlin. On the contrary, it has obtained quite a number of adherents, some with considerable means, and it is known that especially the members of the so-called better social circles are joining this cult. A few days ago a circular was widely distributed by the society containing exact instructions how to get well without medical aid by prayer, alone or supplemented by the laying-on of hands by the Eddyite "elder."

**NEW INSURANCE EXAMINERS' SOCIETY.**—The Society of Insurance Medical Officers was organized in Chicago, October 3d, the avowed purpose being "to establish an organized center of thought and action for the advancement of medical knowledge appertaining to life insurance by personal intercourse of its members, presentation of papers, discussions, and such other methods as may from time to time be found desirable."

**OBJECT TO TUBERCULOSIS CLINIC.**—The plans of the Board of Health to open a clinic for the treatment of



tuberculosis patients on Willoughby Avenue near Stuyvesant Avenue, Brooklyn, has met with strenuous opposition on the part of the Church of St. John the Baptist, which maintains a parochial school and an orphan asylum immediately opposite the proposed clinic. A petition signed by all the residents within a radius of two blocks will also be presented in opposition to the plan.

**DEATH RATE FOR 1909.**—The death rate in the registration area of the United States for 1909, is lower than that for any previous year; the U. S. Census bulletin on mortality statistics gives the death rate, based on the provisionally estimated population for that year, as 15 per thousand, as against 15.4 for 1908. The bulletin states that it is evident that an era of low mortality has begun and cites the fact that the death rate in England and Wales for the same year was 14.5 and for London was 14. This latter fact demonstrates the fallacy of the idea that high death rates are necessarily found in large cities. The largest number of deaths returned for any month of 1909 was 70,093 for March, and the month having fewest deaths was June. The registration area comprised 55.3 per cent. of the estimated population for that year.

**COLUMBIA NEEDS HOSPITAL.**—Dr. Samuel W. Lambert, dean of the College of Physicians and Surgeons, in his annual report to President Butler and the University trustees, makes an urgent plea for a hospital in connection with the college. For this purpose he wants \$6,000,000 for building and endowment. He also states that the first report of research work done under the Crocker research fund will soon be ready for publication.

**ACADEMY TO DISCUSS ANIMAL EXPERIMENTATION.**—The anniversary meeting of the academy will be held November 17th, and will be devoted to animal experimentation in medicine. Addresses will be delivered by Dr. William W. Keen, Philadelphia, on "The Influence of Anti-vivisection on the Character of its Advocates;"

by Dr. William H. Welch, Baltimore, on "The Objections to Proposals of Further Legislation to Regulate Animal Experimentation;" by Dr. W. B. Cannon, Harvard Medical School, on "The Character of Anti-vivisection Literature."

**FREE DENTAL CLINIC.**—The first free dental clinic to be established in Brooklyn was opened early in July at 60 Schermerhorn Street.

**INTERNATIONAL CONGRESS OF MEDICAL ELECTROLOGY AND RADIOLOGY.**—The fifth international congress for discussion of these branches of the medical sciences met at Barcelona, Spain, September 13th to 18th. Among the topics discussed were the unification of methods of electrodiagnosis, electricity as an anti-phlogistic agent, the biologic action of high frequency currents, the therapeutic action of the uninterrupted current and the electrolytic introduction of medicinal ions, the use of Roentgen rays in abdominal diagnosis and autoconduction. The international committee in charge of the congress includes among its twenty-five members, C. Beck, of New York, and S. Leduc, of Nantes. Dr. C. L. Leonard, 112 South Twentieth Street, Philadelphia, Pa., was the representative for this country. He presented an article on the progress realized in Roentgen diagnosis to date.

**WORK AT THE BUDGET EXHIBIT.**—At the budget exhibit of the Board of Health, which is to be open for a month, the New York milk supply has been thoroughly discussed, and Dr. Lederle has asked for 17 additional inspectors, as inspection now must be carried into six states. Dr. Herman M. Biggs has asked for \$103,759 for research laboratory extension. He shows why this request should be granted. The entire cost of the research laboratory to the city was \$58,850 last year. If the city was not producing its own antitoxins it would have been necessary to purchase them at a cost of \$70,635, or nearly \$12,000 more than the laboratory budget for the year. Dr. Walter Bensen called

attention to a serious condition at the Willard Parker Hospital, where there were only fifteen physicians last year for 1,500 patients and only 169 nurses, while 38 physicians and 300 nurses were required. He also showed that Riverside Hospital and the Kingston Avenue Hospital, Brooklyn, were inadequate. Commissioner Drummond of the Charities Department said that the department had under its care 12,000 persons, with a working force of 2,000 in addition. He said that the department was run on a basis of such rigid economy that experts called it phenomenal. He did not see how the cost could be cut down when every day the population of the department increased.

**INCREASED APPROPRIATION ASKED.**—President Lederle of the Board of Health, has submitted to the Board of Estimates his estimate of the appropriations needed for his department during the coming year. He asks for \$4,076,578, or \$1,328,885 in excess of this year's budget. The principal increases are as follows: Division of chief clerk, \$48,949.50; division of child hygiene, \$320,545; division of contagious diseases, \$113,150; division of general sanitary inspection, \$57,210; division of milk inspection, city and country, \$60,510; research and vaccine laboratories, \$101,759, and divisions of hospitals, \$486,056.

**LOCAL HEALTH OFFICERS MUST FILE AN OATH OF OFFICE.**—Attorney General O'Malley holds that a local health officer must file an oath of office after his appointment to the local health board within a reasonable time, otherwise the office is considered vacant and the local board of health may appoint another man to the office and the latter appointment is legal.

**WAR ON INFANTILE PARALYSIS.**—Dr. Eugene H. Porter, State Health Commissioner, has issued a statement that there seems to be no reasonable doubt that poliomyelitis is communicable and that even though the cause may not be positively determined, its transmissibility seems to be positively determined, and, that as a result of a

consideration of the subject, the State Department of Health has decided to put the disease on the list of contagious diseases to be reported to the Board of Health and to be quarantined for twenty-one days. It is believed that this plan will result in the report of a much larger number of cases than hitherto, and will be the means of furnishing much valuable information.

#### PERSONAL.

**DR. JOSHUA M. VANCOTT**, Brooklyn, has been appointed a member of the State Board of Charities.

**DR. AMOS M. RITCH**, of 711 Putnam Avenue, has been offered the position of regimental quartermaster of the Fourteenth Regiment, by Colonel John H. Foote, and it is authoritatively stated that Dr. Ritch will accept. At present the doctor is a battalion quartermaster and commissary in the Forty-seventh Regiment.

Enlisting as a private in Company K, Twenty-third Regiment, on August 24, 1896, Dr. Ritch was honorably discharged in April of 1902. He re-enlisted a few months later, however, and was advanced to the grade of corporal in April, 1903. He was made a sergeant on September 18, 1905, and received his first commission in December, 1907, when he was appointed a battalion quartermaster and commissary of the Forty-seventh Regiment. He was placed on the supernumerary list and reassigned to duty in January, 1908, and a month later returned to the Forty-seventh as a second lieutenant with original rank.

**DR. VERMILYE TO LEAVE.**—Dr. William G. Vermilye, one of the best known of the older physicians of the East New York district, sailed September 26th for Atlanta, Ga., where he will make his permanent residence and embark in drainage operations for the cultivation of cereals.

**DR. RIEGELMAN APPOINTED.**—Dr. Laura M. Riegelman, of 43 Lee Avenue, has been appointed by the Board of Health to the position of ex-



amining physician in the new Woman's Court of Brooklyn, which will be held at the Gates Avenue court, under the provisions of the new interior courts act.

DR. EDWIN A. GRIFFIN has opened an office at 475 Putnam Avenue, Brooklyn.

DR. JAMES T. PILCHER has returned from Rochester, Minn., where he has been for the past two years on the personal staff of the Doctors Mayo, and has resumed his practice at 145 Gates Avenue, Brooklyn.

DR. PURDY H. STURGES, of 145 Seventh Avenue, Brooklyn, wishes to announce that his office hours are by appointment, from 8 A. M. to 12 M., except Sundays, and from 5.30 to 7.30 Mondays, Wednesdays and Fridays.

#### REMOVALS.

DR. ERNEST SCHALCK, has removed to 583 Greene Avenue, Brooklyn.

DR. FREDERIC J. SHOOP has removed to 230 St. James Place, Brooklyn.

DR. LUTHER T. JACKMAN has removed to 499 Eighth Street, Brooklyn.

DR. WILLIAM H. CARY has removed to 38 Clinton Street, Brooklyn.

DR. MERTON L. FUNK has removed to 656 East Seventeenth Street, Brooklyn.

DR. BURTON HARRIS has removed to 475 Greene Avenue, Brooklyn.

DR. JOHN L. MACUMBER has removed to 291 DeKalb Avenue, Brooklyn.

DR. HENRY E. B. MEYER has removed to 625 Knickerbocker Avenue, Brooklyn.

DR. MILTON G. L. WASCH has removed to 1296 Bergen Street, Brooklyn.

DR. JEROME B. THOMAS has removed to 2960 Hobart Avenue, Los Angeles, Cal.

#### MARRIAGES.

FREDERICK J. J. WOOD, M.D., to Mrs. Mabel Wheeler Baily, both of Brooklyn, in Boston, July 12th.

CHARLES W. STICKLE, M.D., to Mrs. Belle Groff Tozier, both of Brooklyn, in Batavia, N. Y., September 20th.

WILLARD G. REYNOLDS, M.D., of Brooklyn, to Miss Angele Irene Callan, at Yonkers, July 20th.

#### NECROLOGY.

Compiled by DR. WILLIAM SCHROEDER, Chairman of the Historical Committee.

FRANCIS HART STUART, M.A., M.D.—Born on September 29, 1846, at Logansport, Indiana, and died in Brooklyn, N. Y., September 4, 1910.

His father was the Hon. William Z. Stuart, LL.D., of Indiana, and his mother Minerva Hart Potter, of Connecticut.

Dr. Stuart married Rebecca S. Kemper, of Cincinnati, O., on February 9, 1875.

He was educated at Dartmouth College, graduating with the degree of A.B. in 1871. Hamilton College conferred upon him the honorary degree of A.M.; his medical education was received at the College of Physicians and Surgeons and the Long Island College Hospital, receiving the degree of M.D. from the latter in 1873. This was followed by a term at St. Mary's Hospital, and in 1874 began the practice of medicine in this city.

During his professional life he has been physician to the Long Island College Hospital, St. Peter's, Brooklyn, Samaritan Hospitals, and Obstetrician to the Low Maternity. Registrar of Vital Statistics, Health Department, 1875-78; Demonstrator of Anatomy and Lecturer on Obstetrics, "Reading Term," 1880-86, and Acting Professor of Surgery, 1895-96, Long Island College Hospital.

He was a member of the Medical Society, County of Kings, Brooklyn Anatomical and Surgical Society, of which he was president in 1884. Brooklyn Pathological Society, president, 1895, American Academy of Medicine, American Medical Association, New York Academy of Medicine, British Medical Association, the

University Club, Columbia Council No. 14, Loyal Association, and the Young Men's Christian Association.

#### MEDICAL PAPERS.

Vierardt's Medical Diagnosis, 1891, 8vo, pp. 603. Translated by Francis H. Stuart, A.M., M.D. Four American editions.

Removal of the Upper Jaw for Sarcoma.

Treatment of Varicose Ulcers.

Treatment of Malignant Growths by Means of Caustics.

The Use of the Obstetric Forceps.

The Obstetrics and Gynecology of William Harvey.

Laceration of the Perineum and Its Immediate Repair.

Treatment of Puerperal Convulsions. The Use of Ergot.

Principles of Treatment Based Upon Recent Medical Progress.

Sterilization with Exhibition of a New Sterilizer.

The Typewriter for Physicians.

Aseptic and Antiseptic Midwifery in Private Practice.

Report of the Obstetric Department, Brooklyn Hospital, 1897.

Some Obstetric Notes.

WILLIAM FREDERICK HOLTHAUSEN, M.D.—Born in Brooklyn, N. Y., June 26, 1881, and died in Kokoma, Ind., September 24, 1910.

His father was Frederick Holt-hausen and his mother Mary Hünecke, both of Germany.

Dr. Holthausen was educated at the Polytechnic and Amherst College. Graduating M.D. from the College of Physicians and Surgeons, N. Y., in 1904. Served as interne in the Westchester County Hospital, Lying-in Hospital, N. Y., and the Kings County Hospital from 1904-08. Member of the Medical Society of the County of Kings, 1908-10, Hill Grove Lodge No. 540 F.A.M., Alumni of the Polytechnic Institute and Amherst College.

JOHN ERHARD, M.D.—Dr. John Erhard died at his residence on East Twelfth Street, College Point, September 30th, from tuberculosis. Dr. Erhard had suffered from this disease for the past two years. He was born in Germany forty-eight years ago, and received his early education there. He studied chemistry in the German schools and graduated with honors. He came to this country eighteen years ago and immediately began a medical course at the Long Island College Hospital. Graduating with high honors, he went to College Point, where he practised until he was forced to retire, because of his illness, about a year ago.

DR. CHARLES FAHLBERG, the well-known chemist, died at Bad Nassau, Germany, August 16th. He was the co-discoverer of saccharin with Dr. Ira Remsen in New York in 1879.

Dr. Fahlberg came to this country from Germany in 1874. He was then a poor man, and went to study at the Johns Hopkins University, where he was a fellow-student with Dr. Charles Doremus. In 1878 Dr. Ira Remsen suggested to Dr. Fahlberg experiments which led to the discovery of saccharin.

Later Dr. Fahlberg went back to Germany and started in business, eventually becoming one of the largest manufacturers of saccharin in the world. There was a dispute as to whom the rights of the discovery belonged, which led to considerable litigation, but it was generally conceded that Dr. Fahlberg had made the first tests, and had obtained the substance which ultimately resulted in the production of saccharin.

Through his manufacturing business Dr. Fahlberg became a very wealthy man. He never returned to this country.



# TRANSACTIONS

## OF THE

# BROOKLYN SURGICAL SOCIETY

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### TUBERCULOUS PERITONITIS.

A paper with the title as above was read by Dr. Charles H. Goodrich, for which see page 414.

DR. J. P. WARBASSE, in discussing the paper, said:

I am sure we were all edified by this interesting and instructive paper of Dr. Goodrich. There are one or two points which come to my mind which I should like to mention. It seems to me there is a class of cases of tuberculous peritonitis which fall outside of either of those which Dr. Goodrich has mentioned. These are the cases in which there are miliary tubercles scattered over the peritoneum, with slight plastic exudate, a slight thickening of the peritoneal coat, and no ascites. I believe these are not uncommon cases. There is but little tendency to adhesions. It may be said that these represent the early stage of the tuberculosis which will ultimately be found associated with adhesions or ascites; but as a matter of fact, I have seen such cases in which the tuberculosis had existed for a long time. I have recently had a patient with such a condition, in whom the history dated back five years.

Dr. Goodrich has described tuberculosis of the intestinal canal and of the appendix, etc. These really are not tuberculosis of the peritoneum. The interstitial and mucous membrane tuberculosis need not be associated with tuberculosis of the peritoneum. In thinking of the gravity of tubercular peritonitis we need not think of

the affection of the mucosa of the intestinal canal which does not involve the peritoneum at all. This does not belong in the category of peritoneal diseases, a tuberculosis of the bowel causing ulceration and stricture, and later invading the muscularis and serosa, is not to be discussed along with tuberculous peritonitis.

The second most important factor in the treatment of these cases is the surgical exposure of the diseased area. While a few years ago we were extremely sanguine that this simple exposure of the peritoneum to the air was of a great benefit and resulted in the ultimate cure of many of these cases, there seems to be a swinging back of the pendulum and it is now considered that that procedure does not offer as much benefit as we had supposed. I still believe that it is of value; and every case should be given the benefit of exposure of the peritoneum to the air and to the traumatism of operation. It is the hyperemia of the operation which produces the result. But still more important is the hygienic treatment of the patient.

In a surgical discussion we do not hear as much of the hygienic treatment as we would in a medical discussion of pulmonary tuberculosis. Still it is of great importance, and the surgeon should keep it in mind above all things. Of the two, I am inclined to think that the hygienic treatment is of more significance to the patient than the local treatment.

There are three important things in

the hygienic management of this condition. One is to keep the patient's bowels regulated, not necessarily by medicine, but preferably by proper dietetic regulations. A large proportion of these patients are constipated from a deficient peristalsis. Secondly, keep the patient in the open air twenty-four hours a day. Thirdly, regulate the patient's diet so that he shall have the maximum of nutrition with the minimum intestinal fermentation, that is, the largest amount of absorbable nutrition which the patient can take with the least danger of surplus which shall produce toxins.

The prognosis is not so serious. We may be sanguine of many of these cases. I see no reason why it should not be a better prognosis than that of tuberculosis of the lungs. In my own experience, which is not large, I can say that the result of the treatment which I have outlined has been extremely satisfactory. I have seen these people recover and remain well, cases in which there was extensive involvement.

Dr. Goodrich has spoken of removing the tubes and other infected structures. If the tubes are involved, very well, if the disease is localized; but if the tubes, broad ligaments and adjacent intestinal wall are involved, I see no reason for removing the tubes when we would not remove the adjacent parts.

I have only last week had a report from a patient with tuberculosis of the peritoneum, uterus, appendages and broad ligaments. She has been living outdoors all day and all night, and has gained twenty pounds in weight since leaving the hospital three months ago. She is entirely free from symptoms of peritoneal tuber-

culosis which had existed for five years. This improvement is due quite as much to the hygienic treatment as to the surgical treatment.

DR. M. FIGUEIRA, in discussing the paper, said:

In speaking of cases of miliary tuberculosis without exudation or fibrinous deposit, the speaker didn't tell us how he makes the diagnosis that the case has existed for so many years and so many months previous to the time of operation. Even when exudation and effusion are present, there is difficulty in diagnosis, and when there is no exudation and no effusion, it seems to me that the diagnosis is not an easy matter.

Another point. He claims that surgeons do not use constitutional treatment. It seems to me that the doctor's experience with surgeons is not very extensive. The constitutional treatment is very extensively treated in some of the recent books on surgery. The hygienic treatment is emphasized as much as the local treatment in tubercular diseases.

Of course, the pathological side of these cases is very important to us, but as surgeons and practical men, the diagnosis and treatment of these diseases is of more importance. The cases which I have seen have been cases of young people and the diagnosis has not seemed harder to me than the diagnosis of many other surgical diseases. These cases are emaciated, weak, with scrofulous appearance and have peculiar features which impress us, emaciated limbs, thin chests and an enlarged abdomen. If we examine carefully we find a weak pulse, some febrile movement, a coated tongue, loss of appetite, and on examination we find the general organs sound ex-



cept at times deposit in the lungs. Of course that will call attention to the disease and we generally find in the abdomen symptoms which make out the diagnosis. There are two classes of cases which I have seen and others speak of. First, those in which there is effusion and the effusion is the most marked feature of the case and other cases in which the effusion is very little and we find the abdomen full of a doughy, dull mass, which represents an effusion of fibrin and tubercular material in the abdominal cavity with very little fluid. The cases in which there is a good deal of effusion are generally cases in which operation does well, whereas in the other cases, we operate and find the abdominal cavity full of fibrinous material with cysts as if somebody put a lot of tallow into the abdominal cavity and operation does not avail.

The doctor spoke of the diagnosis between ovarian cysts and tubercular peritonitis. There is one feature which always helps to distinguish the ovarian cyst from any other form of tumor and that is the fact that with fluctuation we find dullness on the top of the tumor and tympany in the flanks.

DR. W. L. DUFFIELD said:

It is not always easy to distinguish between tuberculous peritonitis and ovarian cyst.

A patient, an Italian woman, from whom we were unable to obtain a satisfactory history, was admitted to Dr. Delatour's service at St. John's Hospital a matter of two or more years ago. She was a moderately well nourished woman; vaginal examination was negative, but abdominal examination revealed an enlarged abdomen which was absolutely flat on

percussion in its middle portion, but tympanitic on both sides and above. I examined her first and made a diagnosis of ovarian cyst and I don't know what diagnosis Dr. Delatour made, but I assisted him at operation, and when the abdomen was opened the middle portion of the abdomen was occupied by large quantities of ascitic fluid, doubtless tubercular in origin and the major portion of the small intestines were crowded to the upper portion of the abdomen and held by adhesions. The colon was firmly bound down on each side so that upon evacuating the fluid the intestinal coils remained in practically the same position as they did before the fluid was withdrawn. That case in my mind was one extremely difficult to diagnose between large ovarian cyst and tubercular peritonitis.

Dr. J. P. WARBASSE, in further discussion, said: When I discussed Dr. Goodrich's paper, I was dealing with facts and not with theories. I am interested to know that the surgical literature contains information concerning the hygienic treatment of tuberculosis; but I desire to call Dr. Figueira's attention to the fact that surgeons are not applying this information. It is one thing for it to exist in the literature, and another thing for it to exist in practice. There are a number of cases of surgical tuberculosis in the hospitals in Brooklyn to-night; and I warrant, I am safe in assuming that not one of these patients is out of doors. They are all in the house. Perhaps, at St. Catharine's Hospital, they are out of doors; but I have my doubts. I may be wrong. I want to deal with facts. Not only in peritoneal tuberculosis but in other tuberculous conditions,

surgeons are away behind the times. We have not caught up with the medical people in the application of hygienic treatment.

One reason for this is the ancient superstition concerning the night air. We are still afraid of it. This fear of fresh air is costing us lives every day. I have seen one surgeon in this very room close a window to-night on one side, then read a paper on tuberculosis. Then another surgeon closed a window on the other side; and after the air became stuffy, he went out and left us here. Now all of the windows have been closed and we are breathing over and over the polluted emanations from one another's lungs—shut up here in this room on this lovely, balmy, spring evening. One of my colleagues arises and says, that, surgeons do understand the principles of hygiene; and I repeat that surgeons are behind the times in their hygienic treatment of tuberculosis of the peritoneum.

DR. MURPHY in discussing the paper said:

In discussing, at the Surgical Society, a paper by Dr. Charles Goodrich on tuberculous peritonitis, I reported the following case, which exemplified difficulty of diagnosis, and called attention to two conditions not mentioned in the paper and not noted by me in the surgical literature on tuberculous peritonitis, viz.: thrombosis of portal vein, a scanty excretion of urine (noted in the case), and also the rapidity with which peritoneal effusion may occur.

Case seen December 29, 1909.

*History.*—Mr. T. M., merchant; 59 years old, married, habits exemplary; family history, negative. Personal history: Early in October he was taken

with slight pains in abdomen, accompanied with gradual loss of strength. Decided he needed medical aid and consulted a physician (who made no diagnosis) but privately informed his wife that his condition was grave and advised that he retire from business. At that time he had no ascites or edema of lower extremities. His urine was beginning to be decreased in quantity. An examination at the time showed a urine of high specific gravity, loaded with urates; otherwise nothing pathognomonic. The man became progressively weaker, and he noticed a swelling of his legs and abdomen. This condition increased rapidly. He then sought the services of an osteopath, who treated him until he was no longer able to leave his home. At that time he was unable to lie in bed on account of dyspnoea, due to swelling of abdomen, and slept in a straight-back chair.

Physical examination, date December 29, 1909. Spare man; cachectic appearance; pulse 72, of excellent quality; temperature normal; mucous membrane anemic; abdomen enormously distended; marked edema of both legs and scrotum; percussion note flat over abdomen except at right lower quadrant, where the ascending colon was adherent to abdominal wall (demonstrated at operation) and visible signs of ascites abdominalis. Heart and lungs negative; hemorrhoids which bleed; bowels move twice a day with some hemorrhage; urine almost a condition of suppression; about three ounces a day and loaded with urates; otherwise nothing pathognomonic. This condition of scanty urine would not respond to any diuretic medication. An infusion of digitalis, acetate potash, diuretin, acet. sodium theocin, nitro-glyc., were



used with negative results. On account of the condition of anuria a syphilitic condition of liver, with gumma of kidney was suspected, but some form of abdominal carcinoma and tuberculous peritonitis were thought of. Blood, urine, Wasserman reaction and laboratory examinations were made by Dr. Archibald Murray. The findings were negative. The case was then seen in consultation with another physician who made a diagnosis of hypertrophic cirrhosis of the liver, prognosis grave. An exploratory laparotomy was decided on and was performed February 3, 1910, at St. Mary's Hospital. Incision in the median line and quantities of ascitic fluid, dark amber-colored, allowed to escape. Peritoneal, parietal and visceral coats dark red, congested and inclined to bleed; miliary tubercles studding wall of intestines; ascending colon adherent to abdominal wall in lower right quadrant; intestines and omentum matted firm; transverse tumor in median line; liver normal in size; no primary foci of infection discovered; portal vein thrombosed and ozonized. The peritoneal surface of the liver and spleen were briskly rubbed with a sponge in hopes of establishing a compensatory circulation by adhesion. The man stood the operation well and was permitted to sit up on the second day. He immediately responded to simple diuretics. He was conveyed home at the end of a week and died suddenly on the eighteenth day after the operation.

This case exemplifies the extreme difficulty of diagnosing a condition of tuberculous peritonitis. The man was undoubtedly suffering from a fibrous form of the disease when he first sought medical treatment; this fibrous form later taking the ascitic form.

The hemorrhoids, bloody stool and scanty urine were due to the portal vein thrombosis. The afebrile condition in such an extensive inflammatory disturbance may be accounted for by the fact that tuberculous peritonitis is of the pure tuberculous type and the absence of any mixed infection; pure tubercular inflammation being characterized by afebrile conditions.

The only literature found on this subject was in Delafield's "Notes on Thrombosis of the Portal Vein." He notes a rapid and persistent dropsy of the peritoneal cavity with a scanty condition of urine, and mentions that in such cases the symptoms may subside and the patient recover, while in others the symptoms subside for a time but recur a number of times.

DR. GOODRICH, in summing up, said:

If Dr. Warbasse had heard all of the paper he would have heard described a type of tubercular peritonitis of the kind he mentioned as the reference to general miliary tuberculosis described that class of cases.

Mention of tubercular ulcers of intestine and tubercular tumors was merely incidental. The fact is that we find a good many cases of tubercular peritonitis with these tumors and with ulcerations of the intestines which in many cases have been the source of the peritoneal tuberculosis through the medium of the lymphatics.

Regarding the hygiene I believe with Dr. Warbasse that we cannot lay too much stress on the hygienic treatment, and especially the preliminary and post-operative hygienic treatment as described in the paper.

There are two chief reasons why we should remove the tubes and ovar-

ies when affected by tuberculosis. First, a number of surgeons have prepared long series of cases where simple laparotomies were done and others in which simple laparotomies with the removal of the causes were performed and the recurrences in the first class have been more than double the recurrences in the second class. In the second place it has been asserted and some think demonstrated that the majority of cases of peritoneal tuberculosis in the female, especially those with acute symptoms, are due to infection from the mucous membrane of the fallopian tube and as complete removal and occlusion of the tube as possible is therefore advised. The idea in recommending this is that we are not only eliminating the diseased tissue but also closing the gateway to infection.

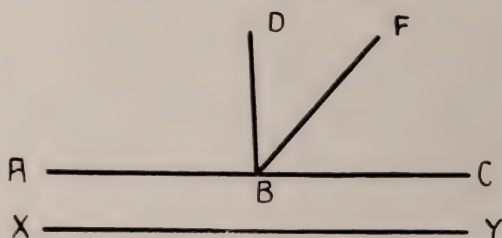
The diagnostic point Dr. Figueira mentions is very valuable in many cases, but in the case stated where I found it, the tympany he mentions was present in one flank but absent in the other.

Dr. Murphy's case of portal thrombosis is unique. I have found no such case in the literature, although cases with hepatic involvement of various types are particularly prone to tubercular peritonitis.

#### COLLES'S FRACTURE.

*Discussion by Dr. A. T. Bristow.*—A classical description of Colles's fracture as it appears in most of the works on surgery represents a fragment over-riding the upper fragment resting on the shaft of the bone, the mechanism of the fracture being said to be due to the over-extension of the wrist on the forearm. As a matter of fact, since the X-ray has shown exactly what does happen, an examination of

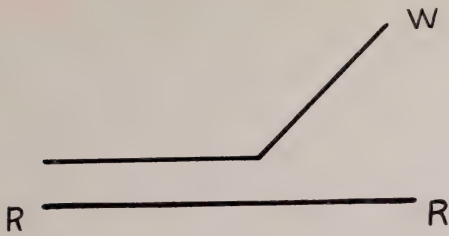
over one hundred plates has shown Dr. Bristow that almost never is a single fragment found riding over the shaft of the bone. The essential feature of this fracture is the shortening of the radius by an impacted fracture and, therefore, the one thing to be borne in mind in the treatment is the restoration of the length of the radius by breaking up the impaction. It is possible to prove mathematically that fracture by over-extension does not happen when the bone is broken by a fall on the ground.



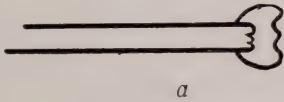
Let A B be the hand and B C the radius. The hand can be extended to a full right angle without producing fracture, as any one may try on himself. Let B D be the hand in extension of only ninety degrees. It is easy to see that no fracture can thus be caused. In order to get a fracture we must have B D in the position of B F.

If X Y indicates the position of the ground on which the fall occurs, A B F will indicate the position of the hand, in an ordinary fall on the hand. But though the hand can be extended to the position D B C, a right angle, without producing fracture and must be moved beyond this position to F B C to produce a fracture by over-extension. But A B F is the usual position of the hand and radius in falls on the hand. Dr. Bristow believes the mechanism of Colles's fracture is something as follows:

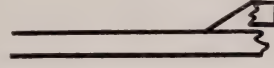




R equals the grounds which represents the resistance. W equals the weight. The shaft of the bone transmitted to R though the shaft of the radius then plows its way through the cancellous tissue of the head. Then we have the condition shown in Fig. a.



a



b

The condition represented in Fig. a is distinctly different from that represented in Fig. b, which the old pictures showed. The hand is carried by the radius; the moment the radius is shortened, back goes the hand. If the hand goes back with this shortened radius, we are bound to have a prominent ulna. The deformity in Fig. a occurs very often, while that represented in Fig. b occurs very seldom.

Dr. Bristow believes it is the height of folly for any medical man to attempt to reduce Colles's fracture without an anesthetic, because much force has to be used to break the impaction. It is also unwise to treat Colles's fracture without having *two* radiographs taken, one before and one after. Radiographs taken with the hand in pronation are worthless. The radiographs should be taken with the forearm half way between supination and pronation, as this position will show the deformity, while the other position will not. If, after the second radiograph, the bones are not properly in position, another whiff or

two of gas should be given if necessary to get the bones in proper position. The photograph after reduction is very important.

*Discussion by Dr. J. P. Warbasse.*

—Dr. Warbasse believed that in regard to the mechanism of fracture of the lower end of the radius, the truth lies midway between the contention of the old surgeons and that of Dr. Bristow. His personal view is that two elements enter into the pathology, namely, hyperextension and impaction. He does not agree that when

the hand is placed in the way indicated by Dr. Bristow, the wrist joint is extended to a right angle. The phalanges and the metacarpal bones may be extended to a right angle, but that in no sense makes a right angle deformity or extension at the radiocarpal joint. When the metacarpal bones and phalanges are at a right angle to the radius the first row of carpal bones are by no means extended to a right angle with the radius. Dr. Bristow is dealing with the metacarpal bones and the phalanges, not with the wrist joint.

One of the points made which is of importance is that an X-ray picture be made before and after reduction. That gives the key to the situation. As to the use of the X-ray in the treatment of this fracture, Dr. Warbasse thinks it is invaluable, and should be used in every case. It is of value chiefly, not for the protection of the surgeon (we will protect the surgeon), but for its diagnostic importance. He said that he used to think that he knew a fracture of the

radius whenever he saw it, and now he knows that he does not. He had recently had an experience. A medical man sustained a fracture of the lower end of the radius last month. He believed he had a dislocation of the wrist joint. He went to his doctor, who reduced it for him successfully, and the line was good. He came to the speaker next day and he could find no fracture. There was no characteristic pain along the line which Dr. Rankin has referred to. An X-ray showed a typical transverse fracture of the lower end of the radius. In previous cases, Dr. Warbasse has had the experience of being in doubt as to whether a fracture was present and finding it by X-ray. In some of these cases pain along the line of fracture was not present. It is not a constant and dependable symptom.

The reader of the paper has called attention to the fact that the surgeon should be satisfied only with a perfect result. The man does not live who can assure a patient with a fracture of the radius that he will have a perfect result. This is due to a fact which has not been brought out. An impaction has occurred in most cases, healing has gone on, and there is not only a spreading of the two styloid processes one from another because of the rupture of the ligaments, but there is a riding up of the styloid process of the radius, and, therefore, a comparative riding down of the styloid process of the ulna. This shortening of the radius may be corrected, and Dr. Bristow may satisfy himself that he has correctly brought down the lower fragment to the proper line, and still, as time goes on, there will occur an atrophy, a rarification of the impacted bone, which the

surgeon cannot prevent. This will cause the styloid process of the radius to ride up and present a comparative riding down of the styloid process of the ulna. Dr. Warbasse has seen such cases in which he has been disappointed to observe the prominence of the lower end of the ulna and the apparent high position of the lower end of the radius, when his notes showed that the correction was perfectly satisfactory. He has called attention to this occurring in the lower end of the humerus and has called attention to the fact that Dr. Stimson has misinterpreted these things. They are not the results of imperfect reduction, but are due to changes in the bone as the result of the injuries, which, in the course of healing, produce unpreventable distortions.

With regard to over-correction, Dr. Warbasse does not like to disagree with so practical a paper as has been presented, but he can perceive no justification for over correction. Dr. Warbasse granted that the writer of the paper may be correct, but stated that his own personal view was that over-correction is not called for.

Concerning the anesthetic, Dr. Warbasse would like to feel that he can agree on this point, but yet he is sure that when it comes to practice, no one uses an anesthetic in all cases of this kind. He doubts if an anesthetic will ever be used in all cases. So many cases are seen in which the surgeon is satisfied that the fracture can be reduced without an anesthetic, that personally Dr. Warbasse does not even request an anesthetic in all cases. He feels satisfied that in many cases a perfectly satisfactory result can be secured as well without as with an anesthetic.



Dr. Warbasse disapproves heartily of the name which has been associated with this fracture this evening. The discussion has not been upon Colles's fracture, and even if it had, Dr. Warbasse would still object to the name. The discussion has been upon the common fractures of the lower end of the radius, of the transverse variety, and that is the fracture which should be spoken of, not Colles's fracture.

*Discussion by Dr. J. Bogart.*—One thing which has impressed me most is the fact that after the thing has been completed and the splints removed, frequently there is an increase of deformity, and I think we who have seen many of these fractures have been surprised and pained. Some of the teaching has been in favor of the early tension of retention apparatus. I think this is a mistake. I have been cured of that. I think the apparatus should be removed and an opportunity given for circulation to be restored. Then I think it should be replaced and kept on for four weeks where there is much deformity. Dr. Bristow's case illustrates this although everyone is not an athlete, but people will do all sorts of things. I have had more trouble with doctors than with any other class of patients. One man for whom I reduced a fracture of the lower end of the radius and applied splints, left the hospital driving his own automobile, and in the course of his rounds, he was unfortunate enough to pick up an old man, he ran into him, and reached out and caught the old man and steered with the other hand until the machine stopped. He suffered great pain, but didn't come to see me until several days later, and then I had to get a monkey

wrench to correct the deformity. The result is not satisfactory to me. I sometimes wonder whether I do not feel worse about this result than he does. If a doctor, a very intelligent man, will do that, what will not the laity do?

In regard to the way the fracture occurs, I think everyone, even Dr. Bristow, must be convinced he is somewhat wrong about that.

Another point is that, like Dr. Warbasse, I thought I could recognize these fractures even when there was no deformity by pressure, but I have found that I cannot.

I am in favor of an anesthetic. We don't need anything more than gas, and one of my reasons is that I have never reached a point where I could hurt a patient with impunity and I always feel when I break up the impaction in a hurry and I don't like to hurt the patient over a second time that I am apt to hope it is all right and think it is all right, whereas if I have gas I make certain. So I think there is a distinct advantage in giving gas and I also approve of taking the picture afterward too. I have not adopted Dr. Bristow's plan, but it seems a very excellent one of having the second X-ray taken.

*Discussion by Dr. Wm. B. Brinsmade.*—All physicians and surgeons who have had dispensary practice have convictions about these cases. These fractures can be properly treated without an anesthetic and in all the dispensaries it is done, if the one thing necessary is borne in mind, that is, reduction of the deformity. Another conviction of Dr. Brinsmade's is that if this deformity is once reduced it will stay reduced, barring such accidents as picking up

a man or going through such exercises as Dr. Bristow has described.

One of the best features of this paper was the position advocated, that is, the dorsal position of the wrist. This is the normal position of the hand. No one sits with his hand hanging down and to put it up so and leave it without support, brings about unfortunate results. The extensor tendons become over-extended and it takes longer to recover from this than from the fracture. It is not practical to use anesthetics in a large dispensary for every case.

*Discussion by Dr. C. H. Terry.*—Deformity of the ulna after Colles's fracture is frequent. The fragments are put in good position by the surgeon, who is surprised two weeks later that there is a deformity. Dr. Terry has bothered many years over these deformities. He believes the old-fashioned double splint is about as comfortable as any splint, but in using it Dr. Terry has been surprised to find the ulna dislocated downward. In using outside splints a number of times, Dr. Terry has cut a V out so that the splint could not press on the lower end of the ulna and he has found that he has been successful in a number of cases in preventing the deformity.

*Discussion by Dr. A. T. Bristow.*—With reference to Dr. Warbasse's remarks as to the right angle, that don't affect the argument at all, because this same thing is true of all the angles I drew. In ordinary falling on a hard surface, the hand is never brought beyond what I drew as a right angle, and it has to go beyond that to get a fracture.

Dr. Bogart said I was wrong, but

he did not point out how or why I was wrong.

*Discussion by Dr. C. D. Napier.*—Dr. Napier does not believe in a plaster moulded splint in these cases. It has appeared much easier to him to apply a plaster of paris dressing after the fracture has been reduced under an anesthetic, and a plaster of paris dressing applied snugly with very little padding, perhaps a flannel bandage is sufficient, prevents the possibility of sliding, with deformity resulting, which occurs with the old-fashioned wooden splints. Dr. Napier does not see how deformity can occur with a plaster of paris dressing.

*Discussion by Dr. F. W. Wunderlich.*—When a plaster of paris bandage is applied to a fractured limb, generally the parts are more or less swollen; after a time the swelling will subside, leaving the splint loose to such a degree that it cannot keep the fractured bone in perfect apposition unless it is cut and additional padding applied.

The claim that a fractured bone can be permanently kept in perfect apposition with one application of a plaster of paris bandage is not correct.

I wish to call attention to the splint of Professor Bardenheuer for the treatment of fractures of the upper extremity. The basic principle is extension of weights or by spiral metal springs, in conjunction with lateral pressure. Professor Bardenheuer claims to have obtained very good results.

*Discussion by Dr. Rankin.*—Dr. Rankin does not wish to infer that it is possible to avoid deformity after every variety of Colles's frac-



ture. He believes the deformity will be very slight if the fracture is properly reduced and the splint left on until the fragments have united. In comminuted and impacted fractures the impaction should be thoroughly broken up and the deformity over-corrected. This should be done with the patient under an anesthetic. He prefers ether in muscular individuals, but somniform serves very well in the less difficult cases.

Dr. Rankin would like to emphasize the point that it is necessary to retain the fragments in their proper position with some mechanical appliance, otherwise we are likely to have a return of a considerable degree of the deformity. He would also emphasize the fact that we frequently get motion and crepitation in the fragments at our first examination. Indeed, it was this point that lead Mr. Colles to take issue with the surgeons of his day. Until the time of Mr. Colles these injuries at the wrist were supposed to be luxations, and to him, I believe, is rightly due the honor of having the fracture bear his name.

#### INTRA-LIGAMENTOUS CYSTOMA.

DR. STEPHEN L. TAYLOR reported the following case and presented the specimens: He stated that the specimen had changed considerably since its removal. There was one large cyst, several smaller cysts and a small hematoma which can be seen now. On the wall of the large cyst the tube was plainly visible and there was also a small cyst which was apparently all that was left of the ovary. It was apparently an intra-ligamentous cyst which had arisen out of the pelvis and had formed a pedicle so that it was not possible to remove it completely.

The patient was an unmarried woman, aged 25, a milliner by occupation, who had always been rather unhealthy and poorly nourished. She had consulted her physician a number of times for attacks of indigestion described as severe pain in the epigastrium. She never complained of symptoms referable to the pelvic organs and the vagina and abdomen had not been examined. A week previous to her entrance to the hospital she had sudden severe pain in right abdomen. The pain continued and she remained in bed a week. When she entered the hospital her temperature was 103 degrees, pulse was 140, and she was very much emaciated and very unhealthy and in very bad general condition.

Examination of abdomen showed a mass occupying all the lower part of the abdomen and extending upward on the right side considerably above the umbilicus. She was immediately prepared for operation, and, on opening the abdomen a tumor which Dr. Taylor exhibited, was found, ligated and removed. The wall of the cyst was congested. The tumor was twisted part way around and the cyst wall was thickened. There was considerable free fluid in the peritoneal cavity and there was evidence of a mild local peritonitis. There was another tumor on the left side which did not extend as far above the folds of the broad ligament and did not have a pedicle. The patient's condition was not good at first and had not been improved by the operation, and it was seen that a careful dissection was necessary on the second side as the tumor extended behind the uterus and in the folds of the broad ligament, so only part of this cyst was removed and part left. The patient recovered and the

wound healed well, but she did not take much nourishment. She vomited frequently and there was difficulty in getting a satisfactory movement of the bowels. An enema was given daily. The pulse went to 110 within a few days following the operation and the temperature was normal. On the twelfth day there was a very decided change. Within a few hours the pulse increased to 160, the abdomen became immensely distended, especially in the upper portion, so much so as to press on the diaphragm and interfere with breathing. The patient's condition was alarming. It was thought because of the constipation and vomiting that it was intestinal obstruction. Lavage was ordered and four quarts of fluid removed from the stomach. The change in patient's condition was very decided. The abdomen was soft and not tender and the pulse and general appearance improved. Food was discontinued by mouth for several days, nutrient enemata were given and lavage continued. There was gradual improvement with slow convalescence. It is now two months and she has been for some time on regular diet, has gained very much in weight and left the hospital apparently in good health, much better than she has enjoyed for a good while.

*Discussion by Dr. R. W. Westbrook.*

—I have seen several degrees of stomach dilatation, post-operative, all of which have cleared up quickly on emptying the large quantity of bile and fluid which gathers in the stomach. I think if we used the stomach tube more frequently and earlier in post-operative cases where there is vomiting and interference with the current of the alimentary canal, it would be of great benefit and, in some

cases, more serious dilatation would be avoided.

DR. PAUL PILCHER advised the employment of stomach lavage at regular intervals in these cases, not waiting for a large reaccumulation to take place.

#### INTESTINAL OBSTRUCTION.

DR. PEARSON reported the following case:

Miss X presented an uneventful history until the age of four years. Late in June, 1909, without known previous sickness, she suddenly became very ill, her state being that of marked shock. Dr. J. P. McQuillan was summoned, and, under his care, she rapidly improved. Shortly afterwards the abdomen appeared uniformly swollen and a febrile condition arose. The child's resistance made the examinations very unsatisfactory. I was called in consultation July 12, 1909. The patient was in dorsal decubitus, with lower limbs drawn up; she looked very sick. Temperature 101½ degrees, pulse 120. The abdomen was barrel shaped, dull on percussion. The dullness did not change with changed position of the patient. The muscles were rigid; there was tenderness over the entire abdomen. A diagnosis was not made, except that a collection of pus of unknown origin existed. July 13th, under chloroform, an incision was made in the median line, to the left of the umbilicus. On incising the transversalis fascia pus was found. Between one and two pints were evacuated and the abdomen resumed a normal configuration. The peritoneum had not been incised. A probe passed between it and the transversalis fascia across the entire abdomen. On account of the deluge of pus we thought it best not to open



the abdominal cavity. Drainage was instituted, the patient did nicely, and the large pus cavity gradually closed. I did not see the patient again until August 25th. Three days before that colicky pains began with inability to evacuate the bowels. Home remedies were administered until the 25th when Dr. McQuillan was notified. I saw her the same day, and she was at once transported to "The Samaritan Hospital" for operation. With the assistance of Dr. McQuillan and the house surgeon the abdomen was opened. The small intestine was adherent to the parietal peritoneum near the umbilicus and confusedly matted

together. It was occluded at three different places. Another obstruction existed below the brim of the pelvis. When these were relieved the intestine below was still distended by gas. A fifth point of obstruction was found at the appendix and the appendix was gangrenous. As much as we appreciated the importance of quick operation in intestinal obstruction, we felt this could not be left. It was ligated at the base and removed. So much manipulation aggravated the pre-existing shock which our subsequent efforts were unable to overcome.

This was the sequel to an unrecognized appendicitis in June.

## BOOK REVIEWS.

Edited by JAMES M. WINFIELD, M.D.

**Surgery in Childhood, including Orthopedic Surgery.** By DEFOREST WILLARD, A.M., M.D., Ph.D. J. B. Lippincott Company, Philadelphia and London, 1910.

When so eminent an orthopedic surgeon as the author, writes a textbook, the profession expects an authoritative treatment and, in this case, is not disappointed.

In the opening chapter, on General Surgical Considerations, the reader finds valuable suggestions on qualifications and methods essential to the pediatric surgeon. The second chapter is very fully devoted to the many less usual conditions found in childhood, such as cranium and brain deformities, cleft palate and to other deformities of the face, the nose and the pharynx, warts and moles, etc. The third chapter, on the Surgery of Neck and Chest, is very full, and shows the author's wide experience. In the fourth and fifth chapters, surgery of the abdomen and of the genito-urinary organs is fully treated. The sixth chapter gives much attention to the deforming effects of the skin contractions following burns.

The remainder of the book, twenty-four chapters, is devoted to orthopedic surgery, fractures in children and other surgical conditions nearly allied to orthopedic surgery.

The qualifications of the orthopedic surgeon, description of some ideal orthopedic hospitals and homes, of special gymnastic departments and apparatus and of industrial schools for cripples, are dealt with in a broad and enlightened manner. Wolff's Law is explained and descriptions of apparatus, braces and instruments follow. A thorough discussion and explanation of methods in the use of plaster-of-Paris, starch, celluloid, liquid glass, wood, felt and other, quickly applied and easily moulded fixation materials, is given.

In the chapter on rotary lateral curvature of the spine, the reader is glad to find so much attention given to the importance and detail of corrective gymnastics. Carefully classified exercises, with free hand work and with apparatus, are listed. It is with some surprise, however, that one notes the author's dependence upon exercise for the correction of struc-

tural scoliosis and his lack of recognition of the cardinal principle of orthopedic surgery, namely, the correction of the deformity first, as applied to structural scoliosis. In the chapter on fractures in children, the reader recognizes the orthopedic surgeon in the author's methods of treatment. Tuberculosis of bones and joints occupies more than four chapters and is fully treated. Other surgical conditions of spine, pelvis, hip and other joints, are dealt with. The recent brilliant work in mitigating the deformities due to infantile paralysis is recognized by the author and his own contribution to the subject is an added value to the book. Talipes and other congenital deformities are treated.

The book is fully illustrated, but one wonders at the very large percentage of illustrations of adults in a text-book on children. The valuable bibliographical appendix and a very full index increase the usefulness of the book.

WALTER TRUSLOW, M.D.

September 29, 1910.

### **Refraction and Motility of the Eye.**

By ELLICE M. ALGER, M.D., Adjunct Professor of Ophthalmology at the New York Post-Graduate. F. A. Davis Company, Philadelphia.

This latest addition to the many works on refraction is especially designated for students and practitioners; it comprises 364 pages with 120 appropriate illustrations. The subject is presented in a practical manner and converts the theory of optics and its application to refraction into an interesting study. The text is not over-technical and by the method of illustrating cases allows the student to follow the steps in refraction in a clear and intelligent manner. There are many helpful suggestions, which the author has gained by his years of teaching.

The arrangements of the chapters are well chosen, leading the reader in logical sequence into the subject. The chapter on the muscular anomalies are

free from confusing theories and are so arranged as to be of much practical value.

The last three chapters are devoted respectively to color blindness, field of vision and the relation of the functional eye diseases to general medicine.

The last chapter states briefly but clearly the conditions due to "eye strain" and defines this, and this should be of special interest to the general practitioner. J. H. O.

### **Handbook of Electro-Therapeutics.**

By WILLIAM JAMES DUGAN, M.D., Lecturer on Electro-Therapeutics at the Jefferson Medical College, Philadelphia, etc. F. A. Davis Co., Philadelphia, Publishers.

Electro-Therapeutics is a branch of medicine upon which the average physician is shy of expressing an opinion, for there are so many glorious opportunities for the unscrupulous man to become emperical.

The physician who wishes to be in the advance guard of the profession, must, of necessity, have, at least, a speaking acquaintance with this therapeutic measure.

Until a comparatively recent time the few text-books upon the subject were written in such ambiguous terms that one studying them was unable to gain much information.

This small volume of Dr. Dugan (only a little over two hundred pages) is a clear exposition of the subject, and any one reading it will certainly find many helpful hints.

The style is clear, and the directions lucid; the summary and glossary, which occupies twenty-five pages of the volume, is of inestimable value.

### **BOOKS RECEIVED.**

KELLEY APPLIED ANATOMY. J. B. Lippincott Company, Philadelphia.

AN EPITOME OF HYGIENE AND PUBLIC HEALTH. By GEO. M. PRICE, M.D. Edited by VICTOR PEDERSON, M.D. Lea & Febyer, Philadelphia.



# LONG ISLAND MEDICAL JOURNAL

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## PROCEEDINGS OF THE 38TH REGULAR MEETING

OF THE

## ASSOCIATED PHYSICIANS OF LONG ISLAND

THE thirty-eighth regular meeting of the Associated Physicians of Long Island was held in the new Opera House at Oyster Bay on Saturday, October 15, 1910.

in other ways. On arriving at Oyster Bay a score of automobiles were found waiting to take the visiting physicians for a drive about the neighboring country and for this



*A conversazione in Front of the Opera House Before the Meeting.  
Photograph by Doctor Frank Overton.*

A larger number of members than usual were in attendance, for more than a hundred went down on the special train and perhaps as many more reached the place of meeting

courtesy from the residents of Oyster Bay, secured mainly through Dr. Irving F. Barnes, the recipients were warmly appreciative. Shortly before three o'clock a committee

composed of Drs. W. F. Dudley, I. F. Barnes and G. W. Faller motored to Sagamore Hill and escorted Mr. Roosevelt to the Opera House.

The president of the association, Dr. Thomas R. French, opened the meeting and then introduced the first speaker who was announced on the program to deliver an address of welcome. The president's introduction was as follows: "An old Greek philosopher once did a favor for his king. The king asked him what he could do for him in return, and the philosopher replied: 'The kindest thing which you can do for me is to stand from between me and the sun.' And so in introducing a gentleman, one of our honorary members, who has kindly come down from Sagamore Hill to welcome us this afternoon, I shall but pronounce a name, a name which is furthest forward on the tongues of men from Africa to the Arctic, Mr. Roosevelt." Mr. Roosevelt's address will be found on another page of the *JOURNAL*.

In moving a vote of thanks to Mr. Roosevelt for his delightful address Dr. Robert L. Dickinson said: "I speak not alone for Associated Physicians heartily responsive to the warmth of the welcome extended by an honored member. I speak for men grateful to the man who has oxygenated life. Also for medical men in charge of underdeveloped lads and overwrought men. These are in his debt for an argument and an influence, since nothing is as effective as a concrete example—a prominent and insistent example. A boy so frail it was thought he could not be brought up, though outdoor life built his body

into a physique capable of the most arduous labors; and in his manhood this incessant mental activity and productiveness is never allowed to interfere with the oxygenation of vigorous exercise. Lastly, as Long Islanders, we are sure that this Long Islander has shown what the old Greek meant who said that if he had a lever long enough—which is, being interpreted, a stick big enough—he could move the world. Mr. President, you cannot look at the map of this country,—indeed, you cannot look on the globe of the world, without seeing that Long Island is that lever. Its fulcrum is here at Oyster Bay. And it was tipped first, perhaps, to move this our world, from its far end, from Montauk. Mr. President, I move a vote of thanks to Mr. Roosevelt." The president then put the motion which was carried by a rising vote amid great enthusiasm. In response, and while retiring from the stage, Mr. Roosevelt said: "I have greatly enjoyed meeting you and if you have had half as good a time as I have you are surely happy."

During the address the boxes and gallery of the opera house were well filled with ladies and gentlemen, principally from Oyster Bay and neighboring towns, and the orchestra stalls were comfortably filled with members of the association and their men guests. It is estimated that there were about seven hundred people in the audience. Practically every one in attendance remained for the Scientific Session, which by consent was placed next in order on the program, and to preside over that session the president introduced the chairman of the Scientific Committee, Dr.



Dudley D. Roberts. Dr. H. D. Pease, of Manhattan, read a paper entitled: "The Fly as a Carrier of Infection." Following the reading of the paper the various features and phases of his subject were most graphically illustrated by means of moving pictures and lantern slides. Dr. Frank Overton followed with a paper entitled: "Practical Measures for the Eradication of the Common House Fly." The papers were discussed by Dr. LeGrand Kerr and Dr. Algernon T. Bristow, and the discussion was closed by Dr. Pease. The papers of Drs. Pease and Overton will be found in another part of this JOURNAL.

After the retirement of all but the members of the association and their guests the society went into executive session. The Membership Committee reported favorably upon the following, who were afterwards elected to membership: Drs. C. A. Anderson, J. W. Malone, W. E. Lippold, J. W. Poole, J. E. Wade, J. P. McQuillin, P. Tradelius, R. C. Gray, D. S. Fettes, J. T. Pilcher, W. E. Bozenhardt, A. E. Gilmartin, R. L. Moorehead, W. G. Mangold, R. E. Shaw, and P. F. Pflug, all of Brooklyn, and L. S. Rau, of Lawrence, W. H. Montgomery, of Kings Park, and R. I. McBirney, of Glen Cove.

The president said that the Legal Committee was alert, the Historical Committee was contributing constantly to the JOURNAL, and the Public Health Committee would report at the annual meeting in January. Of the work of the Entertainment Committee there was no

need for comment from him "as its arduous character and excellence were in evidence all about us." The Publication Committee reported that the affairs of the JOURNAL were in flourishing condition, and that there was every prospect for a large increase in the subscription list during the coming year. The committee had held several meetings which were well attended.

The only other business of importance which was brought before the meeting was that laid over from the previous meeting, namely: Action on the changes in the By-Laws proposed by the president of the association and of which he had given the required notice. In effect the changes proposed abolished permanent committees and made all committees subject to appointment annually by the chair. This also included the Entertainment Committee among the committees to be so regularly appointed. The amendments were adopted.

After adjournment there was a general assembly at the Oyster Bay Inn where an excellent buffet supper was served and for which the Entertainment Committee had provided the pleasing services of a small string orchestra. The special train leaving Oyster Bay at about eight-twenty enabled the members to reach home at an early hour, and from all sources there were heard expressions of appreciation and satisfaction with the conduct of the meeting in all its phases.

JAMES COLE HANCOCK, M.D.,  
*Secretary.*

# ADDRESS OF WELCOME\*

BY

THE HON. THEODORE ROOSEVELT

**M**R. President, Members of the Associated Physicians of Long Island and you my Fellow Townsmen.

I felt that I could not let anything interfere with my being present to greet you this afternoon, in spite of the fact that in my endeavor to be on time I burst a tire of my machine; at the same time I beat the committee appointed to find me by at least ten minutes.

When I last spoke to the members of this association in Oyster Bay I told you of some of my personal experiences with the doctors of the army and navy; but this time I desire to speak to you, in but a few words, of what I saw in Africa last year in connection with the members of your profession. Of course it is a little difficult to speak to you truthfully and yet not seem to flatter you. If in any household the family doctor is not one of the life long friends, then there is something wrong either with the household or with the doctor.

One of the members of the scientific part of the expedition to Africa was Surgeon Lieut.-Col. Edgar A. Mearns, U. S. A., retired, and I think that he had been one of the most efficient surgeons in the army; it was quite remarkable how generally he had been regarded as one of the most efficient surgeons in all the army as well as a medical officer. In spite of the fact that he was

such a busy man in army affairs he found time to devote to his hobby; he was one of the leading naturalists of the entire world as well as being such a successful army doctor. He must have had a heavenly time in Africa because he was enabled to obtain a great variety of specimens, from the biggest to the smallest, in spite of the dangers and horrors connected with such an expedition.

The doctor was exceedingly anxious that when an animal was killed the specimen wanted should not be hurt. On one occasion when the hunters were away from camp word came to them that there were two lions, a lion and a lioness, among the bushes a few miles away. The doctor felt that he could not, or ought not, lose such a chance to get a specimen, so he and Mr. J. Alden Loring, another naturalist, started for the game. They had with them only their light automatic rifles which were totally unfit for African game; and on their way tossed a coin to decide which of them should have the shot at the lion. Dr. Mearns won the toss. On arriving on the ground they found that the lion had disappeared, but that the lioness was there. So it was Mr. Loring's shot. Dr. Mearns constantly impressed upon Mr. Loring that he should not shoot the lioness in the head, for he did not want the skull hurt. "Do not shoot her in the head on any account," was what he said. Mr. Loring was

\* Delivered before the Associated Physicians of Long Island at the meeting held at Oyster Bay, October 15, 1910.



on one side of an opening, while Dr. Mearns was on the other. The lioness made toward Mr. Loring. Dr. Mearns called again to Mr. Loring not to shoot the lioness in the head as he did not want the skull hurt. Mr. Loring shot the animal, but did not make a fatal wound. Then the lioness turned and charged him. Still Mr. Loring was cautioned not to shoot the lioness in the head for fear of spoiling the specimen. Though Mr. Loring actually put a bullet through the beast's heart, the shock from the blow was so slight that she was not stopped even for a second; he hit her four times, each shot being mortal, and the animal died nearly at his feet, her charge carrying her several yards beyond him. When they came back to camp I asked Dr. Mearns why he did not help Mr. Loring in shooting the lioness and he replied: "I could see that the lioness was dying and I did not want to spoil the specimen." Then with a grim humor, which was totally lost on Mr. Loring, he added: "Wouldn't it have been a joke if she had bumped him a little?"

There are two or three different kinds of work that are being done by members of the medical profession in Africa which greatly interested me. First were the Medical Missions and the doctors who were working in connection with those missions. The medical missionary, in every instance, is a doctor who can do an incredible amount of work, and good work too. In this work it is absolutely essential that the missionary should have the ability to work with his hands, and should be able to do something except preach; if he can only preach,

he had better stay at home. I met many missionaries in Africa and visited a number of missions which are doing such admirable and successful work. The work consists not only in preaching, but in instructing the natives in material ways. For instance, they try to teach the women to cook, and the men to work and live better in their huts. They teach them how to clothe themselves properly. If a native dressed after the fashion of a European, he was apt to be made an object of ridicule. These missionaries do admirable work along these lines. The best men for this kind of work, however, are the medical missionaries. They do the most beneficent work. The natives are made to understand that they, the missionaries, are not there to kill but to cure. This is a very difficult thing for them to understand, and especially in the wilder parts of the country where it is so much more difficult to handle the natives. To illustrate: At one station on the Nile there was an infirmary connected with the mission work; there they took care of the sick of all the tribes, and had present about thirty people who came from the remotest tribes in Africa; in fact those thirty men and women came from a distance of about two hundred miles. They came from such a distance because there had been spread among them the knowledge that there was a community at the mouth of the river among whom they could be cured, and they came there to be helped. In some cases, of course, they came with some diseases which it was impossible to cure them of. It was pathetic to see their disbelief in the lack of ability to cure. When they were told by the doctor

that he could do nothing for them they would go sadly away and return the next day bringing a goat. When they were again told that it was useless and nothing could be done they would return the following day with a cow. They were, apparently, unable to believe that the doctor could not cure them if he would, for it was impossible for them to understand why they could not be cured when others were being relieved.

Another thing that greatly interested me was the question of flies and the efforts of the doctors in combating the afflictions which resulted from the bites of those pests; the victims came to the medical missionaries from the various parts of Africa. Two terrible diseases are encountered in Africa, both due to insects and found more particularly in lower Africa. One is the sleeping sickness which has scourged Uganda for some years; and the other is caused by the spirillum tick whose bite brings on a virulent fever which lasts intermittently for months and may be accompanied by partial paralysis. I am more afraid of the tick fever than I am of the sleeping sickness. The best plan to avoid contracting the disease is to keep away from the belts where the flies exist that cause it. It is interesting to note that only one in every 153 flies is infected. These flies are much more apt to give the disease to the natives than to the white men. There have, however, been a number of instances of the white man dying of the disease. The sleeping sickness is a scourge that can only be compared with the

black death which ravaged Europe in the middle ages.

Hyenas soon found out the facts in regard to the sleeping sickness; they found that in many of the huts the inmates were a helpless prey. They grew bolder and bolder, haunting those camps where sleeping sickness was prevalent, and each night entering them, bursting into the huts and carrying off and eating the dying people. Every night armed sentries had to patrol those camps in order to protect the sick.

The old camping grounds are avoided because of the spirillum tick; this dangerous fever tick is one of the insect scourges of Uganda. However, this tick—and I do not know that it is a proper tick at all—is not a common one. It is about the size of a raisin and looks a good deal like one. After it attaches itself it swells up. If a person is bitten he becomes infected, and has this fever which lasts for some months and which is generally accompanied by a temporary partial paralysis, or is succeeded by it. I was mortally afraid of that disease, for I did not want to be paralyzed especially at this time, though I suppose things might have been quieter around here if I had been. I suppose there is no country on the globe where so much remains to be done in the study of obscure diseases as in Africa.

I had not at first intended to inflict upon the members of this association my experience in remote Africa. I am very glad indeed to greet you and welcome you to Oyster Bay.



# THE RELATION OF FLIES TO THE TRANSMISSION OF INFECTIOUS DISEASES

By HERBERT D. PEASE, M.D.,

Sanitary Expert, Board of Water Supply,  
NEW YORK CITY.

**I**N discussing the relation of flies to the transmission of disease our minds naturally revert first to the thought of typhoid fever, and yet to many, typhoid fever suggests first polluted water. Let us therefore

typhoid not only exists, but that there is what we call the "autumnal increase" or a special seasonal prevalence of the disease. This has its height anywhere from July to October, varying in different parts of the world. This



MUSCA DOMESTICA, UPON A PIECE OF SPONGE CAKE.

dwell for a few moments upon this disease before we proceed to discuss the fly.

If you have studied the occurrence of typhoid fever during the various seasons of the year in various parts of the world, you will find that in practically all civilized countries that

autumnal increase, in the opinion of many epidemiologists, has comparatively little to do with water transmission of infection. For several years I have been looking for a first-class out and out epidemic of typhoid fever in the late summer and early fall, which could be really fairly attribut-

able to water transmission, and I may say that I know of none except those in which the pollution of the water has occurred almost immediately before its consumption. If the pollution has been a direct one, I think it is possible to have even typhoid bacilli carried by water in the summertime and in the early fall, but we have yet to find any outbreaks due to indirect water pollution in the summer season.

If we take, for example, the city of Albany, we will find that its maximum incidents of typhoid fever during the years when it was consuming raw Hudson River water occurred in the winter season and yet the autumnal increase of the disease was also noted in the months of August, September and October. Not long ago the filter plant of the city of Poughkeepsie was in bad condition. There was about the same time a tremendous increase in the amount of typhoid fever in that city. This was in the winter season, but the autumnal increase in typhoid likewise existed. As soon as the filter plant in Albany was installed, the winter typhoid fever practically disappeared but they still had the autumnal increase. In the city of Poughkeepsie the same thing was true. When the filtration system was put into condition, the winter typhoid practically disappeared, but the autumnal increase was still present and in the case of Poughkeepsie it was even greater than it had been before the filter was repaired and put in proper condition.

Now, what is the cause of the autumnal increase of typhoid fever? I do not really think that any of us can satisfactorily answer that question. There are many factors to which have been attributed the cause in part, or in large part, namely, milk,

fresh vegetables, foods, shellfish and contact cases. I think most medical epidemiologists believe that direct contact between cases, convalescents and carrier cases, is the cause of a large part of the autumnal increase in the disease, especially in cities. The contact due to the migration of the cities to the country and back again in those months undoubtedly has something to do with it, but yet, unquestionably, flies play a considerable role in this increase.

Many epidemiologists believe that the flies are the means of transmitting disease in the rural districts rather more than in the cities. Doubtless that is the case and in the rural districts disease is much more frequently transmitted by the flies than in the cities. They argue that the opportunities for the fly to come in contact with infectious materials are not as great in the cities as in the country districts and undoubtedly that is the case. D. D. Jackson, on the other hand, feels certain that flies are responsible for much of the summer typhoid and infant mortality in New York City through the transmission of sewage bacteria from the water front. While some may doubt that the flies come in contact with the infectious materials from the sewage left upon the pillars at the wharves and the piles, and the wharves themselves, by reason of the lowering of the tide, as was claimed by Jackson, there can be no doubt that the insanitary conditions which exist around the piers in the city of New York, and in those very congested districts of the city near the piers, furnish ample opportunities for flies to become infected.

I shall speak a little later of the outbreaks of typhoid fever which have



been caused by flies and during which flies caught in the neighborhood of the cases, where insanitary conditions existed, were found to contain typhoid fever bacilli both on their legs and in their fecal discharges.

them are of importance in this matter. It will not be possible to give a detailed description of the different types of flies, and while some of them are, possibly, more important than others in the transmission of typhoid



COLONIES OF BACTERIA SHOWING FLY TRACKS ON AN AGAR AGAR PLATE.

The fly after feeding upon some contaminated material was allowed to walk over the agar agar surface in the Petri dish. The latter was then incubated and the bacteria left behind by the fly grew into colonies.

To speak more particularly about the fly, we will do well to note first that there are a great many varieties of flies, and undoubtedly many of

fever, it will suffice to say that the fly which breeds upon organic matter of animal organism is probably much more important than the fly that



breeds particularly upon decaying vegetable matter. Now, as matter of fact, the ordinary house-fly, the *musca domestica*, which constitutes about 90 per cent. of the flies which are found in our houses and around habitations, do not breed in decaying animal matter. The female *domestica* lays its eggs chiefly in decaying vegetable matter, and apparently the only animal matter in which it will lay its eggs is human excrement. Some biologists even doubt that the *domestica* frequently lays its eggs in human excrement. So the general statement that the *domestica* is responsible for most of the transmission of typhoid fever may be questioned by those who have observed that this species of fly does not lay its eggs frequently in animal matter.

There are, however, a large number of other flies which, if we did not stop to examine them, we would classify as the *domestica*, which are frequently present in civilized communities. There are the very small fruit flies which breed only in decaying fruit. Then there are the larger flower flies which breed particularly among flowers and vegetables. Then we have, as you all know, the biting flies that develop in stables, and there are also the blue-green and so-called blow flies that develop particularly upon decaying animal matter. These flies we do not see frequently in human habitations, houses, etc.

So we see that the species of fly and the method of breeding are matters of very considerable importance. The fly ordinarily lays its eggs in such a location as will furnish the best food for the development of the egg and for the nourishment of the larvæ. It is astonishing that so little is known about the course of development and

life cycle of many of these species of flies other than the *domestica*. The *domestica* has been studied rather thoroughly, and most of the information which is to be had in literature concerns this particular species.

The female *domestica*, as I have said, lays its eggs in decaying vegetable matter and in human feces. It will lay at one time about fifty eggs, and these, depending upon the temperature and the amount of moisture present and upon physical conditions, will develop into the larval stage in from eight to twenty-four hours. The question of temperature is one of considerable importance in the matter of the life cycle of the *domestica*, and the question of moisture also determines its rate of growth.

The *domestica* will lay from 120 to 200 eggs in one season. Some times they pass through even as many as twelve generations in a season's cycle, all depending upon the temperature and the water and food supplies.

These eggs, fortunately for us, have a great many enemies. The various ants carry off a great many. In moving pictures we will see some predatory flies of other species carrying off the eggs of the *domestica* for use as food. In many places the eggs of the larvæ or the magots as we commonly call them are now grown artificially for the purpose of feeding high grade and fancy fowl and birds.

The larval stage of the *domestica* is really its most important stage from the standpoint of the growth of the fly. It is during this stage that the fly reaches its full size. The fly, when it reaches the winged state has already attained its full development. During the larval state, it moults, that is, it sheds its skin and grows to a larger size and again casts off its

shell. This it will do twice during the course of the five days that it exists in this larval state.

During this stage it is possible to find large numbers of them in various decaying vegetable and excrementary material. There have been found as many as 500 larvæ in one human excrement. The numbers that have

the insect is practically in a hibernating condition. This is a matter of considerable importance from the standpoint of the transmission of disease, for if typhoid feces should be thrown upon or buried in the soil, and were not put further down than six inches, it would be quite possible for fly larvæ to penetrate that



1. Flies on a piece of meat.

3. Larvæ in active state.

2. Eggs of fly on decomposing vegetable substance.

4. A moulting larva in the act of casting off its integument.

been found in pounds of horse manure run up into the thousands. Various investigators have taken considerable pleasure in endeavoring to find a larger number than some other investigator.

From the larval stage, the fly passes into what is known as the pupal stage. During this period, the larvæ burrow into the earth sometimes as far as five or six inches, and develop hard shells and there pass through another stage of their life cycle. At this time

distance into the soil, and take into their digestive tracts considerable amounts of this fecal material. When these larvæ develop into winged insects, they would discharge this same material and thereby distribute actual germs of disease. If typhoid feces, for example, are placed in a dry earth closet where it is customary merely to cover the surface with a film of earth, it is quite possible for the larvæ to burrow under or into such material and become con-



taminated by actually eating the filth under the soil, and then coming out again in the state of the winged fly and transmitting the germs by means of their excrement.

Flyes can hibernate in warm places during the winter time, not only in the pupal stage but they can also do so in the form of the winged insect itself; and one investigator, who seemed to be interested in the mathematics of the subject, found that in the spring 40,000 flies developed from twelve which had been hibernating in a warm place during the winter.

One of the most important phases of the relation of flies to the transmission of diseases is the question of the flight of the fly. But how far do flies usually go? When he does travel, he can make about ten miles an hour. Many say that flies never pass more than 200 feet away from the place where they come out of the pupal stage into the winged state. But as a matter of fact, flies have been found many, many miles from the site of their full development. Several years ago I was familiar with a legal controversy between certain of the fish oil companies and the Public Health and Marine Hospital Service, over the location of a hospital near one of the companies' factories. The testimony of the witnesses for the government went to prove that large numbers of the flies were found frequently far out at sea on steamboats and they were identified as coming from this region, where they bred and grew to maturity on the exposed drying fish refuse. It is, therefore, undoubtedly the case that flies can be blown, as mosquitoes can be blown, long distances. Ordinarily, the fly probably does not pass more than 300 or 400 feet away from the

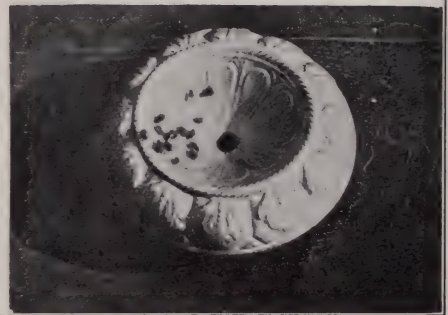
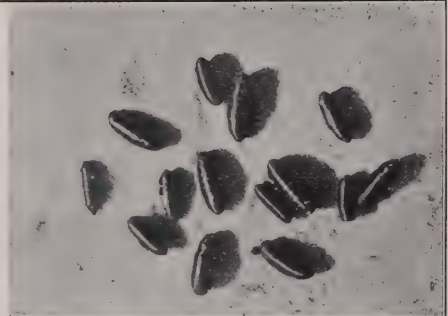
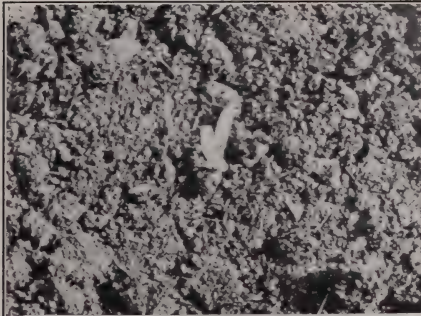
place where it originally developed into the winged insect; but that it can go a very much longer distance is undoubtedly true. In the latter case, the germs which they may take up into their digestive tract and which they may carry in a virulent condition for periods of two or three weeks on the surface of the body, mixed in with the hairs and mucilagenous material which is on the pads of their feet, can be carried over long distances.

The fly not only breeds in decaying vegetables and animal matter, but it actually uses those materials as the source of its food. As I have already said, the larvæ take infectious matter into the digestive tract during that stage of their existence, and the winged insect will also do the same. Of course, as you know, the fly in feeding first liquifies the solid materials with its own secretions, and then absorbs the dissolved materials into its digestive tract.

The really important work in connection with the demonstration of flies as transmitters of disease was done in the early days of bacteriology. In the Hamburg outbreak of Asiatic cholera, it was shown that flies were capable of taking the cholera bacteria into the digestive tract, and of giving them off in considerable numbers in the fly specks or excrement for periods of two weeks. The living bacteria were also to be found on the surface of the fly during similar periods. Later on this was shown to be the case with the typhoid bacillus, and we now know that the fly can take into its digestive tract living typhoid bacilli and continue to give them off for periods of from one to three weeks, and that the living typhoid bacillus can be found upon the legs and hairy body of the fly for

somewhat similar periods. One of the most interesting results of studies concerning the relation of flies to the transmission of disease has come from the work of Lord and others upon the associations of the tubercle bacillus and the fly. Not only has it been shown that the fly harbors the tubercle bacillus as he does the ty-

importance of the fly problem becomes clearly evident. When the fly specks are deposited upon substances such as furniture, wood and cloth, they probably are without any significance from the sanitary standpoint, because the fly speck naturally adheres to the surface of the material upon which it is laid, and is not easily



5. Larvæ entering the soil preparatory to passing into pupal stage.  
7. Wingless fly emerging from the soil.

6. Pupal stage.  
8. Fly feeding upon sputum on the sides of a cuspidor.

phoid bacillus but it almost appears that there is an increase in the tubercle bacilli in the intestinal contents of the fly, when the fly has been fed upon tuberculous sputum. When we ponder over the fact that on the average one fly may deposit as many as fifty fly specks during twenty-four hours and that these fly specks, when they are deposited upon food, may actually serve as a means for the introduction of living virulent germs of disease into the human body, the

removed, and the effect of sunlight and air very soon kill off most of the varieties of the disease-producing organisms which it may contain. But where the fly has actually direct access to foods which are soon eaten without cooking, there is a direct means of introduction into the human system of the organisms which the fly has taken into its own digestive tract, or which it may have upon its legs and body.

It has been noted by Tooth and

others, that the fly seems to have a special predilection for alighting on cases of typhoid fever. It is recorded by him that in the wards of a hospital flies seemed to prefer to feed upon the skin and lips of the cases of typhoid rather than upon the cases of sunstroke and other diseases. Possibly this was due to the fact that the fly must, of necessity, have a certain amount of liquid diet in order to subsist, and in many rooms the only moist articles are the human beings, and naturally the flies are attracted by the perspiration of people who are inhabiting these rooms.

One interesting item has been reported by Veniger. In the city of Vienna, there occurred a case of smallpox in a house not otherwise infected with this disease, but which was in close proximity to the smallpox hospital. A little child developed a localized smallpox infection upon the face. Those of you who are familiar with the clinical manifestations of smallpox know that it rarely occurs under natural conditions of infection except as a generalized disease. This child, however, had a localized smallpox infection on the face similar to the results of smallpox inoculation as formerly practised and the most plausible reason for the development of this localized smallpox seemed to be the possibility that a biting fly had come from the smallpox hospital, where it had fed upon the skin of the cases there and had introduced the virus into this spot on the face of this child.

Historically the fly is really of considerable interest. Those of you who care to do so can find many of the modern ideas on the transmission of disease and their prevention in the books of Leviticus and Deuter-

onomy in the Bible. Reading them in the light of modern knowledge, you will find very interesting revelations. I have no doubt that many of the customs of incense burning and fumigating in the Hebrew temples, and religious rites of that nature, were to a large extent hygienic measures. We know from a study of some of the other rites which were observed by the ancient Hebrews that their main practical object was the prevention of the spread of disease. For example, one of the interesting things which has been studied out is that the ancient Hebrews as part of their religious offerings, burned those fatty parts of the cattle which were most likely to be infected with tuberculosis. It is undoubtedly true also that in many of the rites such as the burnt offering and the burning of incense, vapors were produced which would either kill or drive away flies. As you all know, the temples where these rites were performed were practically the slaughter houses and the butcher shops of the Hebrew people and it is inconceivable that flies of some sort were not pests under such conditions.

I will not go over all the ancient references to flies in connection with disease, but Sydenham who was probably one of the greatest medical observers, said in 1666, "If flies are plentiful in summer, autumn is likely to be unhealthy."

The Bishop of Kund in the 15th Century endeavored to foretell the outbreak of plague by the changes in the weather and the prevalence of flies.

Coming to the more practical application of the subject, it is cer-



tain that many of the cases of typhoid fever which have occurred in the modern wars, have been due to flies. That much of the typhoid fever among the troops engaged in the Franco-Prussian war was due to flies, is generally believed. It has certainly been demonstrated that in our own Spanish-American war a very large part, at least 90 per cent. of the typhoid fever was caused by fly transmission, and 80 per cent. of all the deaths from all cases were from typhoid fever. In the army camps, the germicides, such as lime, placed in the latrines and the sinks, for disinfecting purposes, were found upon the food in the camp kitchen in the form of fly-tracks. Then again, with the onset of cold weather the amount of the disease diminished very greatly. In the Boer war, during which there were 6,000 cases of typhoid and only 7,500 killed in all the engagements, when the cold weather came on the typhoid rate decreased; and when also successful efforts were directed toward the suppression of the fly, the disease was likewise very greatly reduced.

I have already spoken of the work of D. D. Jackson for the Merchants' Association of New York City, and I expressed the opinion that the incidence of typhoid fever near the water front in New York City was quite possibly attributable to the action of flies in transmitting infectious material from the insanitary conditions in those neighborhoods, and possibly, also to some extent from the transmission of organisms from the sewage covered rocks and piles. Personally, I am confident that much of New York

City's autumnal typhoid is due to the activity of flies.

One of the most definite outbreaks of typhoid fever attributable to flies was described by Dr. Alice Hamilton and occurred in Chicago in 1902. It was found that certain regions inhabited by foreigners were showing a very considerable number of cases of typhoid fever. A sanitary survey of the location was made, and very insanitary conditions were found. Open privies were common and so were flies. Some of the latter were collected and out of 18 flies 5 were found to contain typhoid bacilli both in their fecal discharges and upon the surface of their bodies. The distribution of the typhoid cases and all of the factors were in harmony with the conception that the outbreak was due to fly transmission.

Prof. E. O. Jordan, of the University of Chicago, showed very conclusively that the outbreak in Winnipeg in 1904, of typhoid was due to fly transmission. There very insanitary conditions existed, and the fly existed likewise in enormous numbers.

During my connection with the State Department of Health in Albany, I investigated an outbreak of typhoid fever in the village of Castleton, about eight miles below Albany on the Hudson River. A case of typhoid had existed in June on the second floor of a house right near the river, below the main drainage line of the village. In so far as I could determine, the discharges in that case had been thrown out of the second-story window into the adjoining yard. There were no water or sewerage systems in this village. The cases, about fifty or sixty in number, which had developed between June and Septem-



FLIES FEEDING ON A DEAD FISH.  
FLIES ON THE NIPPLE OF AN OLD-FASHIONED NURSING BOTTLE.  
ONE WAY THE BABY BECOMES INFECTED FROM UNCLEAN AND FLY POLLUTED ARTICLES.

ber all had their onset among people who had been living within a block and a half of that particular house. The patients belonged to all classes of society. Contact of a direct kind was out of the question as a cause of the outbreak. The cases were distributed among the customers of many milk dealers. In fact, all of the evidence pointed to the conclusion that this was a fly epidemic. No flies were caught and examined for typhoid bacilli, but doubtless the latter were there.

If the typhoid bacillus is transmitted by flies, undoubtedly many other organisms capable of producing certain diseases, like diarrhœas, are likewise transmitted. In India especial attention has been paid to this aspect of the subject and Arnsworth, Aldridge and Snell, of the British army, and a number of other men have written exhaustive articles, accompanied by very elaborate charts, all showing the relation between flies and diarrhœal diseases in that country. Dr. Jackson's work for New York City is quite conclusive on this point.

There are certain remedies for the fly pest which I will speak of very briefly. Of course, the first to suggest itself is to abolish the breeding places. To do so is a matter of general sanitation. Any decaying or decomposing vegetable or animal substance of any form, even decaying and moulding newspapers, furnish a good media for one or another species of fly in which to lay its eggs, and for the development of the larvæ. The employment of general sanitary measures proper for thickly settled communities, and even of country districts, will wipe out to a large extent the breeding places of many species of

flies. But the manure piles are chiefly at fault, in so far as the ordinary house fly or the domestica, is concerned. Removal of such accumulations to regions farther than three or four hundred feet from habitations is one of the most effective and probably the most practical method of eliminating these breeding places of flies. In many of our large cities where the horse is gradually disappearing flies are likewise gradually disappearing.

Where it is impossible to remove the manure as frequently as once in every five or six days, which is the time necessary for the fly to pass through its entire life cycle to winged insect stage, there are other means that may be taken, but they are very inefficient in comparison with the actual removal of the manure.

For example, the winged insect will not go into a dark place to lay its eggs; it hardly ever penetrates beyond a short distance away from the light, so that the screening and darkening of manure pits is a more or less satisfactory method of treating these places. The application of disinfectants to manure for the purpose of killing the larvæ has been a subject of considerable experimentation, and some few satisfactory results have been obtained, but likewise a great many not so satisfactory have resulted. It should be said, therefore, that attempts to disinfect manure heaps and pits for the elimination of the fly eggs, larvæ and pupa, are not to be recommended, if removal is possible. After the flies are with us we can endeavor to keep them away from our surroundings by means of screens and various methods of exclusion, or by catching them with the numerous kinds of sticky fly-paper or with the



newer mechanical devices. The most efficient of these have as the principle of their operations some well-known biological phenomena. Flies, as I have said, all seek the light, and if you darken all the windows by means of blinds and curtains, leaving one light, you will find most of the flies at that spot. Fly traps on windows and wire cages illuminated at night with phosphorescent paint or the use of poisoned fly foods and drinks and sticky sweets all have biological reasons for their popularity. It is astonishing what results have been obtained in the catching of flies by simple and yet thoroughly scientific devices.

The moving pictures, which will illustrate some of the points I have endeavored to bring out will now be

projected. I may say that the film is the result of the work of Mr. Edward Hatch, Jr., of New York City, who is particularly interested in the elimination of the fly pest, and who conceived and carried out the idea of attacking various sanitary problems by means of moving pictures. Mr. Hatch has been the moving spirit behind the good work of the New York City Merchants' Association's Committee on pollution.

Copies of these films have been placed at the disposal of the moving picture companies in this country, and they have been shown in all sections in the 5 and 10 cent moving picture shows, and undoubtedly have accomplished much in the campaign against the house fly.

## THE ERADICATION OF THE HOUSE FLY.\*

By FRANK OVERTON, A.M., M.D.,  
HEALTH OFFICER, PATCHOGUE, N. Y.

**W**HAT are flies for? This question was often asked when we were boys. One answer was, to test our patience, and it was considered to be a legitimate answer, too. Another answer was, to eat up filth. But in these days of the strenuous life we preach the duty of doing our own scavenging, for we have discovered that the innocent looking fly and all his companion tribe of scavengers are murderers in disguise. Even yellow journalists unite with bald-headed men in condemning his misdeeds, and yet the descendants of the wicked fly still multiply and inherit our

land. Why do we allow them to exist?

When I studied old-fashioned psychology at college the text-book divided the work of the mind into three great stages, called the intellect, the sensibilities, and the will. In every kind of high-grade mental work we must first have knowledge; second, we must have a sentiment, or emotion, or a strong desire aroused in our mind; and third, we act. We do not act until we have both knowledge and emotion. The mind of the community is now in the stage of the intellect. People have knowledge of flies just as they know that twice two make four, and

\* Read before the Associated Physicians of Long Island at Oyster Bay, October 15, 1910.

they show about as much feeling about flies as they do over a fine recitation of the multiplication table. Only a few reformers and a few health officers show symptoms of action.

We can attack the problem of killing off flies in either of two ways. First, we can legislate them out of existence; but can you imagine a justice and a jury of farmers who smell of the cowyard and horse stable enforcing a fly ordinance at this stage of public sentiment? The laws say we must catch a criminal in the act before we can convict him. Unborn flies in a manure pile are innocent of wrong doing. There is no doubt about that. The fact that some of them will surely commit murder will not influence the jury to condemn all the tribe to death and incidentally subject a few lazy milkmen and livery stable keepers to annoyance and expense. Thus will the jury reason when an offender is brought to justice.

The second way of attacking the fly problem is to carry on a campaign of education until knowledge stirs up feeling, and feeling becomes strong enough to arouse action. Then fly ordinances can be enforced and our work will be done. But even at this present stage of public knowledge, fly ordinances will be of great value in educating the people. Patchogue village has a fly ordinance on its Board of Health regulations.

What can we doctors do toward the campaign against flies? One thing we can do is to co-operate with the schools. The new syllabus of study for the elementary schools of New York State requires instruction about flies, their danger, and

how to prevent them. No subject of hygiene comes nearer home than that of houseflies, for the fly is always with us, while few persons ever see a human bone or come in contact with anyone who has a bone injured or diseased. To most children the study of hygiene and physiology means pictures of dry bones, and platitudes about sitting straight, and keeping their feet dry. If any doctor wants to have some fun let him collect a group of children—grown-ups as well as small ones—dig into the nearest manure pile and show them real flies growing. Their wonder would demonstrate that just such instruction at school would eminently be worth while.

We physicians can instruct our patients and the public directly. It is rare to find a sick room free from flies. They are always there, and are usually considered to be merely a harmless nuisance. The attendants think their duty is done when they spread out as many sticky sheets of fly paper as there are flies. How many physicians order—not merely suggest but actually order—the nurses to chase the flies from the room, and to put screens in every door and window? How many physicians make a trip to the water closet to find the source of an obstinate dysentery which affects a whole household. The physician is the person to tell his families that every maggot in a water closet is a young fly. This information is news of the greatest importance, and is the kernel of the whole fly question. And yet if the physician does not impart the knowledge neither the school-teacher nor anyone else will do so. It is our duty

## FLIES AND MOSQUITOES ARE DISEASE CARRIERS

### HOUSE FLIES

Flies pass from spittoons, manure piles, garbage heaps and filth of all kinds to our kitchens and dining-rooms, and crawl over the mouths and eyes of helpless babies, spreading summer complaint, typhoid fever, sore eyes and tuberculosis wherever they go.

Flies lay eggs in manure piles, garbage heaps and wet filth of all sorts. The fly blows on meat are their eggs. The eggs hatch maggots, which turn into full-grown flies in about ten days. Every maggot in a mass of manure or filth or rotten meat is a young fly.

### HOW TO GET RID OF FLIES

House flies, blue bottle flies and stable flies all must have wet manure or other filth in which to grow. If we keep everything in our yards clean and dry we will have no flies.

1. Have no garbage heaps or decaying filth in your yards, or around your barns and stables.

2. Cart away all stable manure once a week, so that maggots will not have time to grow in it.

### MOSQUITOES

Are the Only Known Cause of

### MALARIA

Get rid of mosquitoes and we will be free from their annoyance and from all possibility of malaria.

Most mosquitoes in Patchogue village come from rain barrels and from cesspools. Their eggs are laid in stagnant water, and hatch the wiggling things such as we see in rain barrels.

### HOW TO GET RID OF MOSQUITOES

1. Empty all cans, pails and barrels of stagnant water at least once a week.

2. Cover all cesspools so that mosquitoes cannot enter them to lay their eggs.

3. If you must have pools and pails of stagnant water pour a little kerosene on the water. This will kill the young mosquitoes when they come to the surface to breathe.

### THE LAW

Anyone allowing flies or mosquitoes to breed on their premises violates Sections 12 and 13 of the rules and regulations of the Board of Health of the Village of Patchogue, which read as follows:

12. MOSQUITOES—Water shall not be allowed to stand in any depression of the ground or in any pail, can, barrel or other receptacle in which mosquitoes may breed unless the water is kept screened against the entrance of mosquitoes or covered with a film of kerosene or other oil. Any violation of the provisions of this ordinance shall subject the offending party to a penalty of five dollars.

13. HOUSEFLIES—During the months from May to September, inclusive, no manure, garbage heap, privy vault or other breeding place for flies shall be allowed to exist, or accumulate for more than one week. All barnyards, pigpens, privy vaults and other receptacles for manure shall be kept dry and in a cleanly state at all times. Any violation of the provisions of this ordinance shall subject the offending party to a penalty of five dollars.

**LET EACH PERSON HELP TO ENFORCE THESE RULES**

**BY ORDER OF THE BOARD OF HEALTH,**

**FRANK OVERTON, Health Officer.**

Patchogue, April 25, 1910.



as physicians to tell our patients these simple and elementary truths about hygiene.

Some of us are health officers. What are we doing? We see every case of contagious disease. Do we sail into the attendants and insist that flies shall be kept out of the house? If we do not we do not do our plain duty to the rest of the family and to the public. Mild academic advice to the afflicted family will not suffice. At the sight of a fly crawling on the face of a diphtheria patient we will have to show a righteous indignation before we will arouse the family to get after the creatures with the big stick and the fly spatter. Quarantine even the fly from the premises which harbor a contagious disease.

A health officer's greatest and highest usefulness is as an instructor of the people. If he is conscientious he will spend much time in explaining the nature of diseases to the frightened neighbors. He can go a step further and impart information to the whole town through circulars. Here is one on

flies and mosquitoes which the health officer of Patchogue village had printed at public expense, and which was then distributed to every family by the school children.

This circular made the people sit up and think. No miracles were accomplished, but it gave hundreds of people their first information as to the source and dangers of house-flies.

Lastly, I wish to speak of the public health lectures which your committee on public health have planned. Moving pictures of the development of the housefly can be hired, and prominent members of this association have volunteered their services as lecturers at the various towns on Long Island. The local doctors can surely arouse public sentiment to hire a hall and secure an audience. This kind of work will prove to the public that the Associated Physicians of Long Island is a great moral force for the promotion of health and happiness among the people of the whole island.

## SURGERY AMONG THE INSANE.\*

By W. W. SKINNER, MD.,

GENEVA, N. Y.

Consulting Surgeon to Willard State Hospital.

IT is neither my aim nor inclination to write a technical paper on surgery among the insane; but this broad subject of insanity is, I fear in general, too little understood by the great body of physicians whose work lies outside the special institutions devoted to that purpose. Therefore, I

feel that any suggestion or discussion which might tend to stimulate thought or study in the great field of mental diseases would prove a sufficient excuse for occupying for a short period the time and attention of this meeting.

Regarding the merely mechanical or technical principles and details involved in surgery among the insane,

\* Read before Lake Keuka Medical Association, July 22, 1910.

there is practically nothing of variance from usual rules worthy of notice. The same care in the preparation of the patient; the same practices of cleanliness, of rapidity and of thoroughness in the execution of the operation; practically the same general after care and conduct of the case are essential to success in this special field of surgical endeavor as are practiced elsewhere. Therefore I feel that we can well afford to pass all these by with this simple mention and to confine our discussion to those portions of the subject in which essential differences are found.

In all surgery, and no more or less here than elsewhere, the initial step is that of diagnosis. This responsibility devolves primarily on the general practitioner. It is true that the work of the general practitioner is not usually such as to fit him for the task of minute, accurate and positive diagnosis of surgical conditions; but, here the general practitioner has domain over a special, and, indeed, very broad province. It is his special business and responsibility to recognize the fact of probable necessity for operative procedure. He must be able, and, indeed, willing at least to recognize and entertain the threatening surgical aspect of the case; and, if unable to formulate a diagnostic conclusion, he should promptly secure surgical counsel.

Difficult as is this diagnostic task of the general practitioner in ordinary practice it is vastly more difficult among the insane. It is among the insane that we find indifference, stolidity and stupidity the most profound, exaggeration, prevarication and deception the most misleading, fallacy, illusion and delusion the most convincing. It is not true that all

insane are unmindful, neglectful, deceitful or misguided as to their physical condition; but so great is the relative percentage of possible error in one or all of these respects that the accurate diagnosis of physical conditions, medical or surgical, among the insane requires alike the most complete knowledge of disease conditions, the most ready recognition of objective symptomatology, the most painstaking use of all possible methods of diagnostic technology, the most discriminating search for errors in the evidence, and the most masterly constructiveness in the formulation of a conclusion.

It would, I am sure, be a most pleasing revelation to the average practitioner, whose impressions of insane hospitals are too often tinged with the sombre gloom which hides behind closed walls, and to whom seclusion too often means restraint, to search all the corridors and wards and rooms of a great institution like Willard State Hospital and find not more than two or three, from among the two or three thousand patients there, even locked in rooms or tied in bed. Further than that would the investigator be surprised to find the various individuals of that great community of insane variously engaged in occupation, in contemplations or in meditations, here moving about in apparent comity, there engaged in some congenial pursuit, yonder sitting or standing apart or in groups much as the actors in the great drama of the world outside comport or disport themselves at will. Moreover would he be delighted to discover that here custodians are truly guardians.

Last of all, but most interesting to the medical scientist, let him inspect the scientific records in the various

buildings. Here are to be found case histories comprehensive, complete, accurate, classified, card indexed: first, the case in extenso, embodying history, family, clinical, mental, even to stenographic records of conversations, ravings, speech anomalies, gait peculiarities, etc., etc. All these later condensed for report at staff meetings, considered, decided, acted upon, and results of treatment, operation or autopsy.

All this work is done in the various departments or by assignment; and it is by the aid of these records and observations, and more especially by the special diagnostic ability encouraged, developed and acquired in the painstaking and laborious, accurate, methodical, systematic, intelligent and conscientious gleanings and consideration of data, that the medical or surgical diagnosis is made.

It is my special good fortune and sincere gratification to be able to state that in my experience in one of the great state hospitals for the insane in this state I have found the work of the general practitioners well done; and I believe that the ambitious medical student can find no more profitable opportunity for perfecting his diagnostic ability—especially his faculties of observation and of intuition—than in a year or two in the service of the state in one of these great institutions. The fact of doing his work under conditions of pleasant and profitable associations, and of responsible and exacting supervision is not by any means the least valuable feature of this experience.

I commend to the young men of our profession, and to the older advisors of young men about to engage in practice, the consideration of the value of these opportunities before

attempting independent practice under conditions of inexperience which will cause the careful to hesitate and the reckless to plunge.

Regarding the mortality rate of operations on the insane, it has been my experience that in the purely psychic states operations are borne quite as well as among the sane. To be sure, operations should be avoided during periods of excitement, since in those periods the vital powers are at their lowest ebb and the tendency of the disease itself to a downward or fatal course is a factor always to be borne in mind.

In the forms of mental disease accompanied or caused by degenerative changes throughout the nervous system, such as paresis and cerebral syphilis, there is little doubt but that operative measures, with or without anesthesia, may hasten the terminal period. In these forms of disease abdominal operations are especially hazardous, since the relaxations of muscular fibre render intestinal paralysis and obstructions much more frequent in occurrence, and resistance to infections more feeble.

There is one fact that has impressed itself vividly upon me in my work the past seven years in Willard: that is, the frequency of intestinal obstructions, especially of the valvulus type, in the insane. Both paretics and demented seem extremely liable to this accident; and, owing to the mental condition of these patients, the recognition of the trouble is extremely difficult until after gangrenous or peritonitic changes have so emphasized the symptoms as to call attention to their true state. In four cases we have found large portions of the intestine literally black with gangrene, and in one of these sloughing and



escape of fecal contents had occurred.

Regarding the effect of operations on the mental state of patients a word or two should be said.

In the purely depressive types of insanity benefit mentally may be expected, when, and only when, the local condition is the active factor in the causation of the health depression which underlies the insanity. The paranoic dement neither loses her ob-

sessions nor gains her logical power on losing her uterus.

For these reasons I wish to emphasize the absolute necessity of making accurate diagnoses of the mental disease before making roseate prognoses in operations on the insane.

One of my valued medical friends once said: "An operation is of itself no tonic." Mr. Dooley might say: "It is neither grape nuts nor Peruna."

## THE TREATMENT OF FRACTURE OF THE LOWER END OF THE RADIUS.\*

By A. H. BAKER, M.D.,

ELMIRA, N. Y.

**S**TIMSON says of Colles' fracture: "Under this term are included fractures of the radius near the wrist, which, while differing from each other in many respects, have in common a characteristic deformity, and often a certain difficulty in making reduction." It is this "certain difficulty in making reduction" which decided me to present this paper. Stimson further says, "Next after the ribs the lower end of the radius is the part of the skeleton most frequently broken and that it is most frequent in the elderly." Up to about one hundred years ago it was mistaken for a dislocation of the wrist backward. Pouteau is said by Stimson to have been the first to describe the injury as a fracture, this in 1783. For thirty years following this it was not universally accepted and was still diagnosed and treated as a dislocation. Owing probably to the imperfect means of communicating knowledge, the next writer upon the subject,

Mr. Colles, was not credited with the proper diagnosis and treatment of the injury until after his death, however he accurately described it in 1814. Sir Astley Cooper, in 1823, described fracture of the lower end of the radius, but associated it with dislocation of the wrist. In 1833 he described the fracture which he produced on the cadaver by hyperextension (extreme dorsal flexion) of the hand. Dupeyren, in 1820, by post-mortem examination discovered the true nature of the injury, and soon following its discovery by him it became universal knowledge, and fortunately the credit for the discovery was justly bestowed upon one of its early discoverers, Dr. Colles. As you are all aware, Colles' fracture is usually caused by a fall on the hand or hands outstretched in front or behind to protect the body. The sudden force causes extreme dorsal flexion which snaps the end of the radius, or driving the carpal bones up into the end of the radius splits that bone. The ulna is occasionally broken near

\* Read before the Keuka Lake Medical Society, July 21, 1910.

the lower end. And when not broken there is such displacement of the carpal bones as to give the styloid process of the ulna the appearance of lateral displacement or flattening of the wrist. Stimson is of the opinion that the internal lateral ligament is rarely ruptured and that the appearance of prominence is due to the ascent of the carpus. Dr. Moore, deceased, of Rochester, N. Y., many years ago, just preceding my student days, laid special stress on the rupture of the internal lateral ligament and the protrusion of the styloid process of the ulna through the rupture, and one of the important features of the Moore's reduction and dressing was the restoration of the styloid process through the ligament and holding it there by a broad band of adhesive plaster around the wrist. The band to be cut when a certain amount of swelling had taken place and before serious injury had been done to the parts by compression. Whether the ligament be ruptured or not I think it wise to so manipulate the parts as to restore the styloid process to as near its normal position as possible, the result being a more normal appearing wrist and earlier restoration to normal function. The symptoms of Colles' fracture are marked in most cases by the absence of crepitus, and the most marked symptom is the deformity, compared by Velpeau to a silver fork, by which comparison it is frequently designated. Fortunately the deformity is more apparent than real and when the swelling has disappeared even in improperly treated cases the wrist presents a much better appearance. The surgeon should be on the alert to inquire whether the patient has had a Colles' fracture previous to the last injury. An old

improperly treated but firmly united fracture would present some serious obstacles to reduction. Union is usually firm in from three to four weeks, and with fair reduction the deformity is slight in children and young people, but more conspicuous in old people. The restoration of function is usually good in cases that have had only bad care. The stiffness of the fingers and adhesions of the tendons persisting for weeks or months. For the relief of this properly applied and rather forcible massage serves a very good purpose. In the treatment I will only mention one method of reduction as that was the purpose of this paper.

Dr. Van Orsdale, formerly of the New York Polyclinic, now deceased, described the method and I have found it to work admirably in most cases. As we know, when the radius is snapped off near the lower end and the fragment carried upward it carries with it the posterior ligament and strips up the periosteum from the shaft. This changed position of the lower end of the radius puts the ligament and periosteum at tense extension and all efforts at reduction by extension would be met by the unyielding structures mentioned. Dr. Van Orsdale conceived the idea of placing the hand in the position it assumes when the fracture occurs (extreme dorsal flexion) and then by pressing the ball of his thumb against the lower fragment and following it down as the hand was again extended he found the lower fragment slipped easily into perfect position with almost no tendency to again get out of position. This can be done with some patients without an anesthetic and if gas be available can be done with that anesthesia. When the fractured radius is placed in proper alignment the

styloid process of the ulna is usually found to be very slightly if any displaced and can be restored by slight additional manipulation. After proper reduction the dressing need be of rather light material, a splint placed on the dorsal aspect of the arm and allowing freedom of flexion and ex-

tension of the fingers answers a good purpose. Removal of the splint at the end of the first week and the beginning of massage to prevent adhesions of the tendons is recommended, and the permanent removal of the splint at the end of the third or fourth week.

## METHODS OF STUDY AND TREATMENT OF DIABETES MELLITUS.\*

By JOHN R. WILLIAMS, M.D.,  
ROCHESTER, N. Y.

**D**IABETES more than any other known disease offers opportunity for accurate scientific study. Indeed it may be investigated and treated almost with the certainty of a mathematical proposition, for having discovered the capacity of the body to utilize the various food principles, the outcome or result of a given diet can be predicted with reasonable accuracy. The treatment of diabetes is essentially a dietary one; medicine and other forms of therapeutics play only a minor part. It is the purpose of this paper to point out briefly simple practical methods of studying this disease, methods which the general practitioner can use.

Diabetes is a disease in which there is defective food combustion. The severity of it is measured by the inability of the body to burn or utilize the various food elements. The symptoms and gravity of the disease depend largely upon these products of defective combustion. In the mild forms of diabetes the carbohydrates alone are involved, there is a partial failure to oxidize the simple sugar

resulting from starch and cane sugar digestion. These simple sugars, chief of which is grape sugar or dextrose, consequently accumulate in the blood in excess, overcome the permeability of the kidney and are promptly excreted in the urine. This stage is comparatively harmless and produces few serious symptoms. In the more advanced type of the disease, the body is unable to utilize any carbohydrate, indeed it transforms a portion of the protein foods into sugar, which also is excreted in the urine. As much as 60 per cent. of the proteins may be thus lost to the body. Failure in the metabolism of protein is bad, but failure in the case of fat is worse, for it is from the incompletely oxidized fats that the harmful fatty acids, b-oxybutyric and diacetic acids and acetone result. These substances collectively known as the acetone bodies induce the grave symptoms and finally cause death.

A clear understanding of these important facts is necessary for the proper diagnosis and treatment of the disease. It is not enough simply to determine that a patient has diabetes, it must be ascertained how far the

\*Paper read before the Lake Keuka Medical and Surgical Association, July 22, 1910.



disease has progressed, in other words, it is essential to know what his powers of combustion are. When this is done, treatment becomes more a matter of precision; when it is not done, it is largely a matter of speculation. Such a study may seem like a formidable problem in chemistry and too difficult for the general practitioner to understand. It is important to know that for practical purposes such an investigation may be easily carried on by anyone possessing an elementary knowledge of chemistry and a few simple pieces of apparatus.

When it is found that a patient has sugar in the urine it is desirable, if possible, to determine the kind of sugar and why it is there; for it should be remembered that other sugars than dextrose are found and furthermore all cases of glycosuria are not diabetes. Fehling's solution in itself is not sufficiently reliable as a test. Salol and a number of other substances reduce Fehling's solution so that a diagnosis must be made or at least confirmed in some other way. In fact a diagnosis can only be made after a careful inquiry into the history, and a complete physical examination and an investigation of the urine in the manner about to be described.

The patient should be instructed to save the urine for twenty-four hours without any change in diet. A complete examination of this specimen should be made with special reference to nephritis, intestinal toxemia, as well as diabetes. The patient should furnish the physician with an exact statement of the food eaten. By comparing the intake of food with the output of sugar the capacity of the patient for the various food principles can be approximately ascertained.

The easiest and simplest method of determining sugar is the one devised by Stanley R. Benedict, of Cornell University. This test is exceedingly accurate and can be completed in two or three minutes. Besides the solution, all that is needed is a simple burette, an evaporating dish and a gas or alcohol flame. Very little skill is required, the reaction being prompt and marked. It is incomparably easier than the Fehling method and more accurate.

(Benedict's method is described in the *New York Medical Journal*, September 14, 1907. Recently Dr. Benedict has improved the method. This modification will be published very soon, accordingly a description of the older method is omitted.)

The first time, the fermentation test should be used by way of confirmation, or if desirable it may be used as a method of analysis, but it is not so accurate nor so expeditious. The urine should be tested also for diacetic acid or the so-called acetone bodies. This is very easily done by using a dilute watery solution of ferric chloride. When these bodies are present the urine turns a deep wine red. Salicylic acid causes a very similar reaction.

The information in such an examination affords preparation for the next step in the study of the disease. If the case is an advanced one the patient should be put on a test diet which contains a liberal but definite amount of carbohydrate. After twenty-four or forty-eight hours the patient's twenty-four hour urine should again be examined with reference to the output of sugar. If the diet contains 100 grams of sugar and there is an outgo of sugar in the urine of 40 grams, it follows that 60 grams have

been consumed in the body. This patient has a tolerance for 60 grams of carbohydrate. If, however, there is an outgo of 150 grams of sugar, bearing in mind that there were only 100 grams in the diet, it is obvious that sugar must have been formed in the body. This is the result in severe cases. The patient transforms his protein material into sugar. Such a case has no tolerance whatever for carbohydrates. If, too, a marked reaction for diacetic acid is found it is probable that there is also a failure in fat metabolism.

If the case proves to be a mild one with a fair tolerance for carbohydrates, a more rigid diet should be given, one containing not more than 20 or 30 grams of sugar forming material. Such a diet in the course of a week or two frequently will cause a disappearance of the urinary sugar. If this takes place, a small amount of carbohydrate may be added every three or four days until sugar appears in the urine. It is often discovered that by keeping the urine sugar-free for three or four weeks the patient will have acquired markedly increased tolerance so that two or three times as much sugar forming material may be eaten as formerly and without the reappearance of the glycosuria. If there should be such a fortunate outcome as this, the next step is to give the patient a more general diet which will have the same chemical equivalent as the experimental one.

If the case proves to be a severe one and the sugar persists in spite of the rigid diet a fasting or hunger day may be advised. On this day nothing but bouillon made from meat extract and strong clear coffee are given. This procedure in the majority of cases serves to clear the sugar from the

urine and gives the patient a very considerable though temporary tolerance for carbohydrates. By cautiously varying the diet and by using the low protein and hunger days occasionally this tolerance often may be made permanent. In cases of this type diacetic acid is usually present and it is a very common experience to see it disappear from the urine. At this juncture it is important to remember that all other hygienic and therapeutic measures which may be indicated in the case in hand should supplement the dietary treatment.

Of paramount importance is the mental phase of the case. Diabetics are notoriously irritable and neurasthenic. Segregating or isolating them from all sources of worry and irritation works wonders in increasing their tolerance for food. This is the secret of the *modus curandi* of Karlsbad. It should never be overlooked.

All the while the patient is on these experimental diets a weekly record of his weight should be kept. A pair of scales is an indispensable adjunct to the treatment of diabetes. If the weight declines the diet must be increased in nourishment. If the patient continues to excrete diacetic acid in large amounts it is advisable to have a determination made of the free ammonia in the urine. This is not a very difficult task for the general practitioner and the information gained is of much value since it furnishes a fairly accurate estimate of the measure of acid intoxication.

There are several methods in use for the estimation of ammonia in the urine, but by far the simplest and easiest is the formalin titration method. This has been described by various writers, but the reader is referred par-



ticularly to an article by E. W. Brown.\* This method in its briefest form is as follows:

Ten c.c. of urine to which is added 15 grams of powdered neutral potassium oxalate is exactly neutralized with deci-normal sodium hydrate solution, using phenolphthalein as an indicator. About 10 c.c. of 40 per cent. formalin, which has been previously neutralized, is then added. The formalin breaks down the ammonium salts, unites with the ammonia to form hexamethyltetramin or urotropin and liberates free acid. It is upon the estimation of this acid that the method depends, accordingly the solution is now carefully titrated with deci-normal sodium hydrate until it is neutralized. The number of cubic centimeters of the sodium hydrate thus used multiplied by 0.0017 gives the amount of ammonia in grams in the 10 c.c. of urine. Knowing the amount of urine passed in twenty-four hours the total ammonia can readily be computed. This test is very simple, is no more difficult than the sugar determination, and in advanced cases is of much greater value. The average healthy individual excretes from 0.250 to 0.500 grams of ammonia in a day. With the failure of fat metabolism in diabetes this may increase to from 5 to 10 grams per day.

Those cases which are transforming protein material into sugar should be put on a diet low in proteins, containing a liberal amount of carbohydrates and rich in fats. In advanced cases with a considerable acidosis present, the oatmeal diet is often of value. This should be given over a period of two or three weeks interposing every third or fourth day a diet largely of green vegetables. Total abstinence

from food for twenty-four hours or the use of the so-called starving diet are of great assistance. The purpose of these extreme diets is to give the body an increased tolerance for carbohydrates. The oxidation of even a small amount of carbohydrate serves to burn a considerable amount of the deleterious fatty acids, consequently the end and aim of diabetic treatment is to increase the capacity of the body to utilize this class of foods.

After getting the patient sugar free or as nearly sugar free as possible, the next step is to provide a diet which will have sufficient variety and will appeal to his taste and pocket book. This is a problem presenting many difficulties. The aim should be to provide a diet, which so far as possible, the whole family can eat, thus lessening the labor of the housewife. The endeavor should be made to avoid the use of expensive diabetic foods by furnishing recipes for substitutes which can be prepared in the home. In this manner not only are the resources of the patient conserved, but the suggestion of illness which these foods present, is avoided.

The three foods which usually have to be interdicted are bread, potatoes and sugar. These enter so largely into the diet of the average individual that it is extremely difficult to find substitutes. Most diabetics demand bread and refuse to be denied it. It is of importance therefore to find a suitable substitute for it. Gluten bread contains practically as much starch as ordinary wheat bread and is usually more dangerous, for many diabetics believe that gluten preparations have some curative value and eat liberally of them.

Bran muffins, biscuits made by combining a large proportion of aleuronat

\* Brown, E. W. Jour. A. M. A., liii, 2071.



or soya bean flour with a small proportion of wheat flour are very satisfying substitutes. By exercising a little forethought and ingenuity the physician can provide many inexpensive delicacies for his patients. They should be instructed during the fruit season to can, without the use of sugar, such fruits as are available and safe for them to use. These may be combined and used in many ways during the year to permit of almost unlimited variations in diet. For example very palatable jellies may be made by combining the juice of canned fruit with gelatin using saccharin or glycerin as a sweetening agent. Indeed it may be said the salvation of the diabetic depends largely upon the cook. It is worth while at this time to say that the use of ferments, which on theoretical grounds offered so much hope have proven to be disappointing. The writer has made many accurate metabolic studies with most of the best known ferments and has accomplished nothing by their use. This has been the experience of other scientific workers.

The successful management of a case of diabetes demands patient care and study. The plan proposed is perfectly practical and feasible for the general practitioner and is really worth while. It has for its main purpose the conserving of those overtaxed or impaired organs which have to do with food metabolism. In so far as they are rested, their powers for work are increased; thus food tolerance is acquired. The method is very fruitful in its results. In the majority of cases there is witnessed a disappearance of the glucosuria, the disagreeable symptoms incident to the disease markedly lessen, and there follows an increase in the well-being and

comfort of the patient, which in many cases is striking, and altogether satisfactory.

#### RECIPES AND DIET LISTS.

##### *Substitutes for Bread.*

*Bran Muffins.*—12 ounces bran, 3 ounces wheat flour, one-half cup melted butter, one-half teaspoon salt, one teaspoon soda, 2 eggs, enough sour milk to make soft dough. Put in muffin pans and bake in hot oven. This will make 12 muffins each containing about 5 grams of carbohydrate.

*Oatmeal Muffins.*—One and one-half cups cooked oatmeal to which salt has been added. One-half cup aleuronat flour (Merck and Co.), 1 teaspoon baking powder, 1 large tablespoon butter. Beat one egg into the oatmeal add the butter and then the flour. Bake in muffin pans in hot oven. This will make 12 muffins each containing about 4 grams of carbohydrate.

If the aleuronat flour cannot be procured one-fourth cup of wheat flour and another egg may be substituted therefor. Made in this way each muffin will contain about 6 grams of carbohydrate. A flour made from the soya bean (prepared by the Cereco Co., Tappan, N. Y., at the suggestion of Dr. John Ruhräh), can be substituted for the oatmeal in the above recipe. This makes a very palatable biscuit.

A single muffin prepared after any one of the above mentioned recipes has the bulk and nutritive properties of two slices of bread, assuming that the average slice of bread weighs one ounce or thirty grams. A slice of bread of this weight contains at least 15 grams of carbohydrate and a slice of gluten bread about 12 grams.

*Test Diet.*

*Breakfast.*—One dish of rolled oats, made from two tablespoons of the dry rolled oats, served with three tablespoons of cream. Two eggs cooked in any way desired. Bacon, one ounce. One slice (one ounce) wheat bread with plenty of butter. One cup coffee containing one tablespoon cream.

10.30.—One bowl beef broth.

*Luncheon.*—One bowl broth or clear consommé. Meat freely. Liberal portions of any of the following vegetables: lettuce, spinach, sauer kraut, cauliflower, cabbage, asparagus, string beans, beet greens, tomatoes, eggplant, water cress, celery, cucumbers, Brussels sprouts and unsweetened pickles. One slice bread and butter. One cup tea or coffee containing one tablespoon cream.

*Dinner.*—One bowl broth in which an egg has been beaten. Salad made of lettuce, cucumbers and tomatoes using plenty of olive oil. One small slice of ham with two eggs. One slice of buttered bread. One cup coffee with one tablespoon cream.

This diet contains about 85 grams of carbohydrate distributed as follows: in the bread 50 grams, in the vegetables (10 ounces) 17 grams, in the oatmeal 16 grams, in the cream 2 grams. The carbohydrate intake can be greatly reduced by employing one of the bread substitutes instead of the bread and by omitting the oatmeal, or if necessary, both may be excluded.

A low protein diet may be constructed from the foregoing by limiting the meat intake to the following

amounts: beef, fish or fowl, 4 ounces, bacon 4 ounces, 4 eggs. These to be distributed through the day as desired. Broths in this diet should be made from meat extracts or from vegetables. This modification gives a protein intake of about 70 grams which is less than half the amount the average diabetic eats. The fats, butter and olive oil should be increased materially to compensate for the reduced proteins.

*Green Diet.*—This diet is composed chiefly of green vegetables. One egg and a small amount of bacon may be allowed at each meal and a cup of clear broth between meals. The amount of food should be restricted so that the diet will only partly nourish the patient.

*Starving Diet.*—This diet should contain practically nothing having food value. It is composed chiefly of clear broth made from meat extract and strong coffee. These may be given together or alternately at frequent intervals.

*Oatmeal Diet.*—Eight ounces of oatmeal or rolled oats are boiled for two hours, this is salted to suit the taste, then 6 ounces of butter are added and the mixture boiled an hour longer. This is allowed to cool and the whites of 5 eggs are added and the mixture again boiled for a few minutes. This amount is to be eaten in 24 hours. It may be served as gruel, a portion of it may be fried and eaten as fried mush, and another portion made into little cakes and baked in the oven, or pancakes may be made of a part of it.

388 Monroe Avenue.

## ABDOMINAL CONTUSIONS.\*

By MATHIAS FIGUEIRA, M.D.

OF all surgical injuries there is not any presenting so many peculiar features, so many singular symptoms, and certainly none the proper interpretation and understanding of whose symptoms, or, for the matter of that, absence of symptoms, has such importance in the final result, as to saving of life.

The gravest of symptoms may not mean a fatal result, and slight or moderate symptoms, both local and general, may only mask a fatal injury. In the first place, an abdominal contusion may cause death without leaving behind any well-defined evidence during life or post-mortem. The existence of such cases has been denied, I know, but the evidence in old and modern literature does not leave room for doubt.

Some reported cases of this kind may be doubted but in others the evidence is conclusive.

Sir A. Cooper described the case of a man who dropped dead after a blow on the epigastrium, and Hunter McGuire reported the case of a man who was struck on the sword belt by a rifle ball and fell dead, yet at post-mortem the only evidence of injury was a small contusion of the abdominal wall (page 854, Vol. 5, *International Encyclopedia Surgery*, Askhurst).

Again, in some cases of abdominal contusion, both the local and constitutional symptoms may be very slight or be entirely absent and lead one into a false sense of security,

when in reality there is a fatal injury present.

The usual symptoms one relies on, such as variations in the pulse and temperature and local and constitutional disturbances, may all be lacking, with rupture of internal viscera and peritoneal infection.

A man, after a fall, was able to walk to hospital unassisted, notwithstanding the fact that his intestine was ruptured and intestinal contents were free in the peritoneal cavity. Another case was reported of a man with rupture of the duodenum, followed by death in sixteen hours, no visible bruise or external wound being found on examination; yet he was able to walk up and down stairs after hot applications had been made to the abdomen for several hours. (*Lancet*, July 17, 1897.) In a third case, with no external evidence of injury after an accident in an elevator, it was found that the liver, spleen and right kidney were lacerated.

On the other hand, with grave local symptoms, with evident external laceration and marked constitutional symptoms, such as abdominal distension, tenderness, pain, vomiting and collapse, the injury may not be fatal, being only confined to the abdominal walls, and the internal viscera be intact.

A case of severe crushing injury, with rupture of the right rectus muscle, with very great sub-peritoneal hemorrhage at operation, revealed no internal lesion; recovery. (*Johns Hopkins Bulletin*, March,

\* Read before the Brooklyn Surgical Society.



1894.) Both in military and civil practice such cases are often seen.

Between these two extreme classes of cases there are all varieties and shades of symptoms, both local and constitutional.

Of course, in the general run of cases their nature and gravity can be made by careful examination and noticing of local and constitutional symptoms. In this connection the history of the injury is, above all things, most important. The nature of the violence and amount of force, the direction of the impact, the size of the object, are all of vital importance. Take, for instance, a common case of violence producing these injuries—the kick of a horse. The distance from the animal is all important. If the person is close to the horse at the time, the injury is not likely to be as grave as if several feet away from it. If the horse kicked with both feet directly against the abdomen or with one foot sideways, whether he was shod or not.

In military practice men are often struck by pieces of shell or sometimes by spent cannon balls as they lay on the ground. Such an injury is likely to be much graver than if a man is struck by the butt of a musket or kicked by another man. This only shows the importance of as complete a history as possible and the consideration and judging of all circumstances. Of course, all the organs are to be carefully examined, including the thoracic viscera, as the diaphragm may be injured and the pleura or pericardium involved.

The secretions and excretions are to be carefully examined, the vomited matter, the urine and the feces.

And yet dispatch and prompt decision are here of the greatest importance. In no other surgical condition does a few hours' delay mean so much in the final results.

Prompt action may save a life that otherwise would be lost if operation were delayed a few hours.

What, then, is the proper treatment of these cases? From this brief consideration of this class of injuries it seems evident that unless one can be positive that the internal viscera are not injured exploratory laparotomy is the proper treatment. If from the nature of the injury or other circumstances or symptoms there remains the slightest doubt in the surgeon's mind as to the possibility of internal injury, immediate laparotomy is imperative.

Statistics and reports show beyond a doubt the brilliant results of prompt operative interference in these cases at the earliest possible moment. Once infection has set in, the case is beyond help of any kind.

With the modern asepsis and operative technique, well understood by all surgeons, exploratory laparotomy is a safe operation.

And when one considers, on the one hand, the satisfaction and assurance given in these treacherous cases when laparotomy shows that the internal viscera are not injured, and, on the other hand, the vital importance of early repair in cases of internal injury, no surgeon can doubt the propriety of exploratory laparotomy in all doubtful cases.

# THE USE OF DESICCATED LIVER EXTRACT IN DIABETES AND CHRONIC GASTRO-INTESTINAL AUTO-INTOXICATION.

By O. L. MULOT, M.D.,  
BROOKLYN-NEW YORK.

Before giving my results and experience with the use of this substance, I feel that from the unqualified, misleading and meagre mention of it in English medical literature, justice to the originators and for our own proper understanding, we must get their viewpoint of the pathological conditions, to the treatment of which this substance is applied. This will necessarily lead us into a rather lengthy discussion, but one that I firmly believe will prove interesting and instructive, and not until we understand their viewpoints, whether we adopt them or not, are we in a position to judge the rationale of this treatment. Further, I will say at the outset, that the use of this substance has not received the endorsement of the Germans, but American clinicians certainly are competent to judge for themselves and should be governed by their own results.

In 1896 Gilbert and Carnot published the first reports of liver extract medication; this was amplified the next year and in 1898 they made a further report to the French medical congress. These reports may be abstracted about as follows:

In a certain clinical form of diabetes, by the use of liver extract or rather powdered desiccated liver, the sugar, in a two-months' course of treatment, fell from 19 grammes in 24 hours to 0. In another case, from 24 grammes to 0. In a third case, from 44 grammes, it fell to 24, then to 15, finally to 2 grammes. The liver extract was then discontinued, and the sugar rose to be-

tween 10 and 20 grammes; then on the resumption of the liver extract the sugar disappeared entirely. In another case Gilbert watched the effect of this medication not alone on the sugar, but also on the urea elimination, and while the sugar fell from 75 grammes, the urea output rose to double, thus showing a direct resumption of two of the liver functions.

These reports coming from competent men, high in the profession, compel attention. In all the time-honored and classic dietaries for diabetes, liver is a proscribed article of food and here are men who deliberately administer it in large quantities and record a diminution of the sugar; but let us study the classification of clinical types of this disease, as held by the French school. In deference to the older classics, the four old main forms are retained and described, namely:

1. Arthritic or obese.
  2. Pancreatic or thin.
  3. Nervous type; under which head must also be the form due to traumatism.
  4. Bronzed type.
- To these are added:
5. Diabetes due to hepatic insufficiency.
  6. Diabetes due to hepatic hyperactivity.
  7. Aglycemic diabetes.

A renal or suprarenal type of the disease they question. With levulose-uria, the manifestation of the disease in early childhood, during pregnancy, or when associated with other or inter-

current disease, we need not concern ourselves. For the first three forms of this classification, the nosology is often factitious, as for instance a diabetes in an obese patient may be very slow in its early progress and suddenly turn into the thin and rapid form, so that an addition of acute and chronic could very well be made to this classification.

I. Diabetes of the arthritic or obese is most frequently met with in those apparently robust, well nourished, of sedentary habits and neuro-arthritic heredity. In the antecedents usually is to be found either diabetes, gout, lithiasis or obesity. Its onset is insidious, and the gland triad, polyuria, polydipsia and polyphagia are rarely marked in the beginning. Often the glycosuria is only accidentally discovered. It is not intense, rarely exceeding a few grammes per litre, and usually yielding kindly to an anti-diabetic regime. The sugar may even for such long periods be absent as to lead to the belief of intermittent attacks. Most all the diabetics of very long duration belong to this form. In spite of its apparent benignity it is a grave disease; the prognosis of intercurrent disease is always unfavorably modified; at any moment highly dangerous complications may arise; tuberculosis is less frequent in this form, but this is outweighed by the liability to all the accidents common to arteriosclerosis; to furuncles, carbuncles and gangrene.

II. *Pancreatic*.—From the frequency with which mental disease, hysteria, epilepsy, exophthalmic goitre is found in the antecedents of those attacked by this form, Thiroloix believes it to be of nervous origin. Sudden in its onset, it is usually ushered in by gastro-intestinal troubles; vomiting

and abundant diarrhœa. Insatiable thirst is commonly the first symptom, soon followed by the other two of the triad. The sugar persists in spite of the most rigid diet. The amount is always great, sometimes as high as 1,800 grammes in the 24 hours. The nitrogen loss is high and independent of the nature of the food. Lipuria is extremely rare, the hunger excessive and cannot be satisfied and may persist right up to death, although in some cases the patient is seized with an unconquerable disgust for food. Severe diarrhœic discharges horribly fetid, often containing fat resembling melted butter, are common. Often the liver is found enlarged and icterus has been observed in several cases. Lancereaux has attributed the colicky abdominal pains to calculi in the pancreatic duct. Emaciation is rapid, the patient losing as much as fifty pounds in a very short time. The skin becomes wrinkled and pigmented, sometimes to the same degree as in Addison's disease; its course is very rapid and uninterrupted, the patient rarely lasting more than a few months.

III. *Nervous Type*.—Due to lesions or functional disturbances of the nervous system. The medulla or the floor of the fourth ventricle may be the seat of appreciable lesions, as tumors, foci of softening, hemorrhages, or sclerotic patches. It may follow violent emotions, grief, prolonged mental strain and represent purely dynamic troubles of the nervous system. The diabetes of syphilis is very probably of nervous origin and has for its determining cause a gumma or syphilitic meningitis. In its ordinary form it does not in its essential symptoms differ materially from the other forms, except that the nervous symp-



toms such as neuralgia, may be intense. Transitory paralyses, cramps, tremors, narcolepsy, amblyopia, all these without appreciable lesions or cause having been noticed; abolition of patellar reflexes, intellectual troubles and delirium, all without appreciable lesions, may occur. Pulmonary complications are rare. It usually runs a slow course and when not due to any organic lesion, in other words purely functional, it may undergo spontaneous cure. Apoplexy or coma are the commonest causes of death. In this variety should be included all those cases of traumatic diabetes, which not presenting any special clinical differences other than their etiological factor we need not here devote time or space.

IV. *Diabetes Bronze*.—This type was first described by Hanot and Chauffard in 1882; its melanoderma, hypertrophy of the liver plus the grand triad, stamps it as an anatomico-clinical entity. Added to the usual symptoms of diabetes is the distention of the abdomen, which is disproportionate to the ascites present. The hypertrophied liver shows an exaggerated sensitiveness to palpation and percussion. The spleen is hypertrophied and may even attain the size that is sometimes seen in malaria. The digestive disturbances may be marked and the emaciation is rapid; insomnia, in contradistinction to narcolepsy, is present; impotency and the absence of patellar reflexes are marked. It usually attacks male adults, its course is rapid, rarely lasting more than from five to eighteen months.

For the sake of continuity of discussions, I will break from the order followed in naming the clinical varieties and here describe the aglycemic type, then the other two.

V. *Aglycemic Diabetes*.—In this singular and interesting variety there is no approximate record or ratio between the sugar in the blood and the sugar in the urine, the former hardly being above the normal, while in the 24 hours urine 100 to 150 grammes may be found. It is believed that the sugar is formed in the renal parenchyma. From the great rarity of this form little is known of its progress or its treatment.

VI. *Diabetes Due to Hepatic Insufficiency*.—In 1899 described by Gilbert and Weil and believed by them to be due to chronic incapacity of the liver to hold the sugar ingested or formed in the digestive tract. In this form the behavior of the sugar is very characteristic, particularly if we restrict the patient to two meals a day. In mild cases the sugar does not show itself until after the heavier meal. In the more marked cases there is a very distinct accentuation of the quantity after the richer meal, but still an absence of it after the night's fast. In severe cases, where at all times in the 24 hours sugar is present in the urine, there is still a very characteristic increase usually amounting to a doubling of the quantity in the urine following the heavier meal. The amount of sugar is never very great, in mild cases not exceeding a few grammes, and in the severest form, rarely more than 40 or 50 grammes per diem, and goes to prove that the sugar passed is not that generated in the liver but that contained in the aliment, which brought to the liver by the portal vein is not held and stored, but simply passes on into the general circulation and makes its appearance in the urine.

The urea elimination usually is low except when the patient is a big eater. The uric acid on the other hand is gen-

erally augmented. Indicanuria and urobilinuria are frequently present. The quantity of urine as a rule is not increased and when so does not exceed 1,500 or 2,000 grammes. The three grand cardinal symptoms of diabetes—polyuria, polyphagia, polydipsia, are rarely observed, in fact, their absence is rather diagnostic; on the other hand the presence of the minor syndrome expulsive gingivitis, nervous troubles, furuncles, carbuncles, cataract, etc., shows that we are dealing with a true diabetes and not a simple alimentary glycosuria. It may be possible to discover a slight increase in the volume and consistency of the liver, but in exceptional cases where this form has been observed in patients suffering from an anterior atrophic cirrhosis, the general symptoms of hepatic pathology are lacking. The general aspect is that of the arthritic diathesis. This diabetes is curable, rarely spontaneously but always by treatment. The grave consequences of diabetes are rarely if ever seen in this form; the patient never succumbs to gangrene or coma; they are, however, frequently attacked by tuberculosis, they die with but not of their diabetes; males of advanced age are most susceptible. Often it is possible to exactly fix the date of onset, from an attack of hepatic colic, an attack of grippe, typhoid fever, pneumonia, or an erysipelas, any of which may usher in this form of the disease, as we also have observed a pregnancy do.

VII. *Diabetes Due to Hepatic Hyperactivity.*—This is characterized by an entirely different urological syndrome; the quantity of sugar is higher—100 to 150 grammes. An examination of the urine of different hours of the same day shows wide fluctuations,

clearly showing the influence of food and the greatest amount may be found in the urine of the night or even that of the early morning hours, after the heavier, the dinner meal; but such clear-cut maximum and minimum differences as in the just described form are not here observed. The nitrogen output is usually increased, but the cardinal signs of hepatic insufficiency, namely, uribilinuria and indicanuria are lacking. Careful examination will reveal a liver increased in volume, but unless there is a coexisting cirrhosis, it is not changed in consistency; hepatalgia is almost always present, either dull or sharp, lancinating in character; some believe it is in direct proportion to the glycosuria. Its course is rapid, due to the sugar loss plus the heavy nitrogen elimination. Coma or tuberculosis close the scene.

From these descriptions of the clinical varieties of this disease as conceived by the French school, we see at once what an important role they ascribe to the liver. The differences between the varieties, one to hepatic insufficiency, the other due to hepatic hyperactivity, are clear cut and each has a different, distinct physiological function of the liver as its foundation.

We must keep the two glycogenic functions of the liver clearly before us. The liver does not alone generate glycogen, but it also stores it. In the variety due to insufficiency, they believe the storing function to be at fault; the organ failing to hold a normal amount of glycogen and when the carbohydrate is reduced, not to the extent of a strict diet, no sugar appears in the urine, and this is the very thing that makes a distinctive difference between this form and that ascribed to hyperactivity; in the hyperactive form

the glycogenic function goes on producing glycogen in spite of strict carbohydrate free diet. To make these two different functions the basis of distinct varieties of the disease is perfectly logical if the clinic will sustain the classification. But before we enter into any discussion of that question let us see what if any anatomico-pathological evidence there is in support of so important a role. Dieulafoy has made the liver in diabetes the subject of long study. He says, "In a great number of diabetics the liver is normal; it is neither hypertrophied or cirrhotic. Not alone is this integrity of the liver found in those who do not pass more than from 40 to 50 grammes of sugar, but also in those that pass 500, 600 or even more in the day. In spite of the enormous quantities of liquids and food consumed for many months by one of my patients, the stomach was not dilated and the digestion was perfect and without the least sign of trouble. At the autopsy of this diabetic, the liver was found macroscopically and microscopically normal, as was also the pancreas. Besides the cases of diabetes in which the liver is normal there are again those in which it is hypertrophied and those in which it is even cirrhotic. Be it well understood that I am not now speaking of those complex cases in which the patient is at the same time diabetic and alcoholic, or tuberculous, malarial, or syphilitic; under such conditions one can never exactly know whether to attribute the hypertrophy or cirrhosis to the diabetes alone or to the other, anterior or concomitant disease. I allude now to hepatic complications of diabetes and am not speaking of the diabetes bronze."

Seegan and Lecorche believe that

there is a diabetic hepatomegaly. According to Lecorche it habitually attacks the entire gland.

Glenard, on the contrary, has shown that in diabetes and notably in the diabetic who is also arthritic, there is a monolobular hypertrophy of the right lobe of the liver. The abnormal physical conditions presented by the liver are not always uniformly distributed throughout the gland. These may be found localized in different parts of the liver that are accessible to exploration and may present different characters according to different locations; these variations in character are not the result of caprice but in obedience to pathological law. While the liver is a homogeneous gland, disease does not always invade the whole of the gland. "Clinically," says Glenard, "the liver can be divided into three parts or lobes: the right lobe, which extends to the extreme right from a vertical line passing through the nipple and the gall bladder fissure; the middle or quadratus which lies between this mammary line and a line that passes from the right side of the sternum to the umbilical fissure; and the left lobe which is that part of the organ that lies to the left of this parasternal line and might also be called the epigastric lobe. Clinically these divisions have been demonstrated and correspond to the anatomical divisions. The fourth or Spiegel's lobe is never accessible to palpation. The lobes are respectively independent of one another in their pathological processes, their functions, their circulation and their nerve supply. Morbid processes do not invade the liver *en bloc*, but proceed from lobe to lobe with slowness or rapidity, according as the process is an acute or chronic one. The



invasion beginning in this or that lobe and the choice being in accordance to the disease or morbid principal, whether that be of the portal, arterial biliary or nervous tract."

The conclusions of Glenard are based upon clinical experience, verified in the autopsy room. To his pupil, Serege, belongs the credit of establishing the fact that these are in accordance with physiological and physical laws, but not the result of caprice. Serege first sought the explanation for Glenard's observations by a study in comparative anatomy, where he found the blood carried to the liver by more than one vein. This led to the conception of the theory of independent currents in the portal vein, which conception is supported by the fact that there is a measurable difference of specific gravity and the freezing point between the blood in the splenic vein and the blood in superior mesenteric vein. Further, if a solution of methylene blue is injected into a branch of the portal vein it distends the lobe to which this branch goes, but does not disseminate itself over the entire organ and only very slightly distends the borders of the adjoining lobes, thus proving that the portal veins of the liver are not a freely intercommunicating system, as heretofore has been generally believed. Experimenting on living animals he found that injecting a small quantity of India ink into one of the original veins of the superior mesenteric always resulted in an embolic infarct in the right lobe of the liver and injection of the same substance into one of the small veins of the splenic always resulted in an infarct in the left lobe of the organ; thus establishing the existence of two separate currents in the portal vein. Serege, estimating the quantity of

glycogen placed in reserve each time by the digestive act, found that in the right lobe, about the fourth hour of digestion and only during the phase of intestinal digestion, presented a quantity of glycogen far in excess of that to be found in the left lobe. That this coupling between the small intestines and the right lobe of the liver plays an important part and presides over and regulates nutritive mutations, is not astonishing in view of the fact that it is this lobe that suffers the greatest modifications in the course of diabetes.

The interesting findings of Serege are not so generally known and appreciated as their importance merits, and to us here concerned with the consideration of liver extract medication, these facts are of particular and peculiar interest. As this medication, until further improvements are made, is by rectum, the portal system is our carrier, therefore its sources and its ultimate distribution in the liver are of significant importance. The mesenteric veins do not take in more than the upper third of the rectum and it must follow that only a relatively small part of our absorption is directly carried to the right lobe of the liver and this to my mind also explains why large doses are necessary.

Gilbert and his pupils, Carnot, Weil and Lereboullet, insist on a hypertrophy of the liver in the course of that form of diabetes described as due to hepatic hyperactivity, but in the type due to insufficiency the liver is ordinarily not large except in a few rare cases in which there was a previous hypertrophy.

Lepine determined the glycogen amount in the liver of diabetics removed in the autopsy room and in several instances found it very scant.

Since we are not to confine our-

selves to the narrow field of this substance in the treatment of one of the clinical forms of diabetes but its application to the entire field of hepatic pathology, function and organic, and the secondary conditions arising therefrom, I will, before reporting my own cases, mention a few of the conditions in which it has been used in Europe. In England it has been used in cirrhosis; some cases were reported markedly benefited, in others no result could be observed. Also in gout, but the number of cases reported are too few to afford any definite opinion of its value in this condition. Theoretically, in the light of Schmoll's work, that nucleotinic, phosphoric acid is the product of nuclear tissue and that this is the substance that keeps uric acid in solution in the body, then the liver, the largest nuclear tissue organ in the body, must play an important role in gout and anything that will keep the functions of this organ at par should prove of value.

In the absence of definite and constant pathological lesions, we must regard hepatic insufficiency, also some of the other clinical types of diabetes as functional disturbances. This is a harking back to the ideas of our forefathers, which were abandoned at the advent of the cellular pathology and still further crowded from our views by the proofs of the bacterial etiology of so many diseases; but when we encounter diseases that we cannot make fit in the frame of bacterial origin we must seek another explanation, even if such an explanation is largely hypothetical, we must have some such hypothetical, or I will call it even purely imaginary scaffolding, to carry us in our researches. Nor does this explanation carry on its face

the marks of improbability or absurdity, when we recall that by medicinal substances many of the functions of the economy can very profoundly be altered, and that without the intervention of micro-organisms, or cellular changes resulting from such drug administration even when continued over a very long period of time. These results of drug administration we must then consider functional and in this light it cannot be considered so very great a jump of imagination to assume that pathological changes, apparently insignificant in extent and not jeopardizing the integrity of the organ or economy, may produce altered secretion or toxic by-products, that, acting either through the central nervous system or directly upon other organs, proximate or remote, cause altered functions in these? It is not necessary that I should here produce all the reasons that have caused me to take this view, but if what I have said here causes some worker in the field of physiological chemistry to investigate I shall have accomplished the desired end.

My own experience with this substance is almost entirely confined to its use in chronic gastro-intestinal auto-intoxications. The bile is the agent that keeps in check the growth of the bacterial flora common to the bowel. Therefore any overgrowth, and this is what occurs in the chronic bowel intoxications, must be due to a defect, either in quantity or quality of the bile; further, we are justified in regarding any lack in this secretion as an evidence of hepatic insufficiency. When we consider that all the former methods of treatment, intestinal antiseptics, such as salol, thymol, naphthaline, podophylin, etc., high colon



irrigations promptly relieve the patient, yet these results it is admitted by all are of the most transitory character and all the symptoms speedily return to their former severity. The use of some of these drugs entails such gustatorial sacrifices that their continued use is a hardship. Lavage is so time robbing and inconvenient a procedure, not to speak of the attending cramps, and as it affords nothing like a permanent result, all of which is very discouraging to their employment. On the other hand a liver extract suppository can be inserted night and morning, involving practically no loss of time or discomfort and no dietic sacrifices and vastly better results; more lasting.

For the preparation of liver extract which I used, I am indebted to the generous and progressive spirit of the firm of Parke, Davis & Co., and while it was impracticable for them, in its preparation, to follow out the detailed instructions laid down by Gilbert for the obtainance of the very highest type of extract, still I am convinced that the substance furnished was of sufficient quality to prove or disprove the theory.

CASE I.—Mrs. G., age 35, complained of constant headache, conscious of feeling feverish. A history of a perineal abscess that ruptured spontaneously into the vagina and which had left a sinus from which there was a more or less continuous discharge of pus, I deemed the source of an intoxication, for this I considered her condition to be. This old sinus and the abscess cavity were excised, and during the post-operative period, when light diet, rest in bed, etc., are the rule, she was free from her symptoms; but soon after she resumed her active duties there was a return of all the old symptoms. An examination of the urine showed an excess of indican; that taken with the presence of very foul flatus and irregular bowels, led to the diagnosis of chronic gastro-intestinal auto-intoxication. She was given thymol which acted very promptly, but when stopped there was in a few days a return of all her symptoms.

Then colon irrigations were ordered, but the griping, the inconvenience and the time necessary for this procedure all tended to make this treatment very distasteful to the patient; and while it was persevered with for a reasonable time when discontinued it was found to have produced no more lasting result than had attended the use of thymol. The same story repeated itself with all the other intestinal antiseptics. About that time I received the liver extract and she was put on that, using one, one dram suppository on retiring. The first effect that she noticed was that the flatus was even more offensive than before, but her headaches disappeared. She kept up this treatment for about forty days and when she stopped she experienced for the first time in several years the necessity of straining at stool. In the fall, about four months after the treatment, there was a slight return of her symptoms and she resumed the use of the liver extract for about ten or twelve days. That was about seven months ago and she has been absolutely free of her old trouble during that time. It had been impossible to obtain such a result in her case by any of the other methods of treatment. Aside from the longer period of well being she expressed a decided preference for this treatment, there being no discomfort and no dietetic sacrifices.

CASE II.—E. L., age 67 years, has been losing flesh for some time, has several attacks of colic, but these were of short duration. In the early part of 1909 she began to have loose bowels; for this she used home remedies, but these failing, I was called to see her. The urine was found to be loaded with indican. She was first put upon salol, with bismuth and opium, until the intestinal discharges were somewhat under control; then liver extract, one suppository and at the end of ten days two, one night and morning. At the end of ten weeks she reported herself well and I have heard nothing of her since.

CASE III.—James D., 28 years. Draughtsman. Was seen during an attack of diarrhoea, vomiting and cramps, which he attributed to a dietetic error. He gave a history of having had several similar attacks and that he always suffered from foul flatus. After convalescence from the acute attack was well established an examination of the urine showed a moderate increase of indican. He was put on liver extract. I saw him six weeks later and he said that he had not felt so well in a long time as since he had used those suppositories. He only used about fifteen. I saw him again three months later and he said that he thought he would use another fifteen suppositories.

CASE IV.—Mrs. M. R., age 38 years, has for years suffered from headaches, eructations and flatulency. Has been through the



whole list of digestive correctants and intestinal antiseptics. Urine showed no indican but some urosine. Was put on liver extract. She used about twenty of them but discontinued because they increased her constipation. Her headaches are so much improved that she says she is going to try another course of them later on.

CASE V.—Fred-L., age 42 years, occupation, writer. Has headaches that come at different times, increasing in intensity until they incapacitate him for his work. Foul, loose bowels, noxious flatus. Urine from 48 to 60 oz., containing from  $\frac{1}{4}$  to  $\frac{1}{2}$  per cent. of sugar, no indican. Has no thirst and appetite very moderate. I considered this a case of diabetes due to hepatic insufficiency. He was given liver extract in increasing doses and succeeded in keeping his urine free from sugar for several days, then the sugar returned. It was impracticable at that time for him to diet and as his case was not a severe one of diabetes this was not insisted upon, besides at that time being under a very heavy mental strain, he hopes in the near future to live under more favorable conditions when he intends to give this remedy another trial. As high as 12 drams of liver extract were used in his case without the observance of any unpleasant symptoms. During the use of the remedy he felt and looked better, his headaches disappeared. He, too, noticed the necessity of straining at stool after stopping the drug.

In closing I will only add, that if this substance even on extended use fails to cause the disappearance of the

sugar in certain cases of diabetes, it seems of such positive value in giving better and more permanent results in chronic gastro-intestinal auto-intoxications and as the latter condition is one of much greater frequency than that clinical form of diabetes, it certainly deserves to find a permanent place in our *armamentarium medicum*. If my theory that hepatic insufficiency is a functional disturbance due to a toxic by-product generated in the body and that the chronic gastro-intestinal auto-intoxications are but sequelæ or secondary manifestations, then we can understand and must expect that even liver extract can give us no permanent results, for it is not argued that this will do away with the cause of our insufficiency and as long as that remains operative all strengthening and upbuilding of the liver is but temporary and must in time again give way under the continuing tearing down process. But until we have that certain knowledge and an efficient means to combat it, I believe that liver extract must and will stand us in good stead.

## LONG ISLAND MEDICAL JOURNAL

A Forum for the Discussion of all Topics involving the Medical Profession and especially that of Long Island.

EDITOR-IN-CHIEF

PAUL MONROE PILCHER, A.M., M.D.

ASSOCIATE EDITOR

JAMES MCFARLANE WINFIELD, M.D.

EDITORIAL OFFICE:

145 GATES AVENUE, BROOKLYN, N. Y.

Further Information on advertising page 3

DECEMBER, 1910.

### NECROLOGY.

WILLIAM S. SEARLE, A.M., M.D., was born at Bradford, Mass., in 1833, and died in Brooklyn, N. Y., October 30, 1910.

His father was the Rev. Moses C. Searle and his mother Mary A. Smith, both of Massachusetts.

He was educated at Hamilton College, receiving the degree of A.B. in 1855 and A.M. in 1858. His medical education was under the direction of W. H. Watson, M.D., of Utica, N. Y., attending lectures at the University Medical College, New York City, in 1855-56, graduating with the degree of M.D., from the University of Pennsylvania in 1859, he began the practice of medicine in Troy, N. Y., in 1859, remaining until 1869, in which year he came to Brooklyn.

Dr. Searle was married at Troy, N. Y., on June 1, 1863, to Cora A. Filley. The children of this union are H. F., Alice G., Carrie F., Jeanate F. and Alexander H. Searle.

He gave considerable attention to the question of State Board of Medical Examiners, and when the first board was created in 1872 he became a member, remaining until 1894, again in 1907 to 1910.

During his professional life he was physician to the Brooklyn Homeopathic Hospital, Brooklyn Maternity, and the Homeopathic Eye and Ear Infirmary.

He was an ex-President of the Kings County Homeopathic Medical

Society and the New York Medico Chirurgical Society.

His medical and other papers were as follows, his essay at graduation in 1859: "A Review of Draper's Physiology"; "A New Form of Nervous Disease"; "Essay on Erythroxyton Coca"; "Henry Ward Beecher"; "Sedentary Men and Stimulants"; "A History of Homeopathy in Brooklyn—1894"; "The Practice of Medicine in the City of New York and the Rise of the New School—1898"; Clinical Editor, *Homeopathic Observer*.

CHARLES HENRY SHEPARD, M.D.—Born in Morrisburgh, Canada, on September 28, 1825, and died in Brooklyn, N. Y., on October 29, 1910. His father was Timothy Shepard and his mother Betsy Vail.

His education was received at the Ogdensburg Academy, N. Y., and his medical education was under the direction of Drs. R. T. Trall and George H. Taylor, receiving the degree of M.D. from the New York Medical College in 1859.

He began the practice of medicine in New York City and in 1861 came to Brooklyn.

Dr. Shepard's first wife was Miss Mary Elizabeth Coan, of Dexter, Me., November 22, 1856. She died in 1866. On October 14, 1869, he married Miss Cornelia Roach, of Brooklyn, N. Y. The following children were born: Charles M. Shepard; Elizabeth B. Shepard, wife of the Rev. Horace Porter; Margaret Josephine, William Henry Shepard, M.D., Frederick N., Ralph K., Percy W. and Eliot.

On October 6, 1863, Columbia Heights, Brooklyn, N. Y., Dr. Shepard opened the first Turkish bath in America.

He was a member of the Medical Society, County of Kings, from 1888 to 1908; American Medical Association, American Public Health Association and the Medico Legal Society of New York, the New York Reform Club, Twilight Club, Brooklyn Institute of Arts and Sciences, Long Isl-

and Historical Society, Brooklyn Ethical Association.

#### MEDICAL PAPERS.

"Treatment of the Insane by the Turkish Bath"; "Hot Air in Inebriety"; "Rheumatism and Its Treatment"; "Action of the Turkish Bath in Disease"; "Heat a Preventative of Cholera"; "Sanitary Advantages of the Turkish Bath"; "Children's Disease"; "Turkish Bath and Personal Hygiene"; "Alcohol vs. Animal Poison"; "Turkish Bath in America"; "Health and Beauty"; "Bath in Modern Medicine"; "Alcohol in the Grippe"; "Public Turkish Bath Needed"; "Diet in Disease."

THOMAS LINCOLN WELLS, M.D.—A native of Randolph, Ohio, where he was born in 1860 and died in Brooklyn, N. Y., on October 21, 1910.

His medical education was received at Bellevue Hospital Medical College, where the degree of M.D. was conferred upon him in 1883. The following year he was an interne at the Kings County Hospital.

He was a member of the Medical Society of the County of Kings, 1888-1908, Brooklyn Society for Neurology, of which he was President in 1894-95, New York Neurological Society and the New York Physicians' Mutual Aid Association, the Union League Club, Ohio Society in New York, and Acanthus Lodge No. 719 F. & A. M.

Dr. Wells was married to Miss Jennie McCoe, of Auburn, N. Y. The following children were born of this union: Norma C., Marion H. and Wallace B. Wells.

CHARLES BOROME0 CURRAN, A.B., M.D.—Born in Brooklyn, N. Y., December 23, 1872, and died in the same city on November 1, 1910. He was the son of James and Margaret Curran.

He was educated at St. John's College, graduating with the degree of A.B. in 1880, receiving the degree of M.D. at the Long Island College Hospital in 1893. This was followed by

an interneship at St. Mary's Hospital from 1893 to 1895. In the same year he received an appointment as inspector for the Health Department which he retained until his death. During the years 1895-96 he was a member of the Medical Society, County of Kings. He also held membership in Bedford Council K. of C., Reliance Tent, K. of M., and Church of Our Lady of Victory.

His wife, Adele McDonald, of London, Ontario, and four children, Margaret, Charles B., Jr., James and Helen, survive him.

ROBERT HUNTER DUNCAN, A.B., M.D.—Born in Barrington, Nova Scotia, and died at the Jamaica Hospital on the 31st day of October, 1910. He was the son of the late Rev. Robert Duncan, of Canada. He was educated at Mount Ellis University, New Brunswick, and received the degree of M.D. from the College of Physicians and Surgeons of Baltimore in 1889. In this year he became a member of the Medical Society, County of Kings, remaining until 1893.

For a number of years he was resident physician of the St. John's Hospital at New Brunswick, and surgeon for the Pacific Mail Line and physician to St. Bartholomew's Clinic, New York City.

GEORGE ASBURY DEWEY, M.D.—Retired homeopathic physician, of 319 Putnam Avenue. Born August 22, 1828, at Chelsea, Vt., and died in Brooklyn, N. Y., November 1, 1910.

Western Reserve University M.D., 1849. During the Civil War he was surgeon at Fortress Monroe.

He leaves two sons, Charles F. and Julius A., and a daughter, Mrs. William C. Buckley.

NORMAN MCLEOD CARTER, M.D.—Dr. Norman McLeod Carter, a physician and the fourth son of the Rev. Dr. Samuel T. Carter, of East Orange, N. J., died at Saranac Lake, N. Y., November 2d. Died of pulmonary



tuberculosis. College of Physicians and Surgeons, New York City, M.D., 1902. He was born in Huntington, L. I., thirty-four years ago and studied in the Huntington High School and Princeton University. He was stricken with tuberculosis in his senior year at the College of Physicians and Surgeons, and went to Saranac Lake, six years ago, where he had remained with the exception of a year spent abroad. Dr. Carter was unmarried.

FREDERICK HOLME LOIGGIN, M.D., 26 Jamaica Avenue, Flushing, and 55 West Thirty-sixth Street, New York City. Died at Atlantic City, N. J., October 29, 1910. Bellevue Hospital Medical College, M.D., 1877. A member New York County Medical Society, American Medical Association, New York Academy of Medicine, Alumni of Bellevue Hospital. Physician St. Elizabeth Hospital, New York, Throat Hospital, Litchfield County Hospital.

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## TRANSACTIONS

### OF THE

## ASSOCIATED PHYSICIANS OF LONG ISLAND

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### STANDING COMMITTEES FOR 1910

#### *Scientific Committee,*

Dudley D. Roberts, Brooklyn, *Chairman.*  
 Walter G. Frey, Long Island City.      Hugh Halsey, Southampton.

#### *Historical Committee,*

William Schroeder, Brooklyn, *Chairman.*  
 James S. Cooley, Glen Cove.      Walter Lindsay, Huntington.

#### *Publication Committee,*

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 James M. Winfield, Brooklyn.      William H. Ross, Brentwood.  
                                          Louis N. Lanehart, Hempstead.

#### *Legal Committee,*

William E. Butler, Brooklyn, *Chairman.*  
 Edwin S. Moore, Bay Shore.      Robert J. Morrison, Brooklyn.

#### *Membership Committee,*

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 Adolph G. Rave, Hicksville.      Clarence R. Hyde, Brooklyn.  
 John E. Jennings, Brooklyn.      William L. Mulcahy, Far Rockaway.  
 Lefferts A. McClelland, Brooklyn.      Frank C. Dildine, Port Jefferson.

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James A. Hutcheson, East Rockaway.

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Clarence A. Baker, Brookhaven.

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John P. Heyen, Northport.

Charles E. Wells, Sag Harbor.

F. E. Benjamin, Shelter Island.

Guy H. Turrell, Smithtown.

John Nugent, Southampton.

Hugh Halsey, Southampton.

*Entertainment Committee,*William F. Dudley, Brooklyn, *Chairman.*

Irving F. Barnes, Oyster Bay.

Jacques C. Rushmore, Brooklyn.

Henry MacDonald, Morris Park.

*Discussion of Dr. Pease's Paper.*

DR. LE GRAND KERR, of Brooklyn, said that the subject under discussion was a very trite one at the present time and, as late as the hour was, he felt that he must rise and say that the two papers just read were most interesting and instructive. They had been brought face to face with a problem that all must deal with and which he thought all would confess that they dealt with only when in the face of disease. Personally he said he had but very little difficulty with intelligent patients in instructing them that there was great danger in having flies around, not only flies but cats and dogs in a sick room. This applied particularly to rooms in which a patient was sick with some contagious disease. The public was indifferent about these things. He said he was very much interested, particularly in the first paper, but there was one point brought out which he must disagree with, namely, placing bowls of sugar and water in the sick room in order to attract the flies and to gratify them. He saw great danger in such a suggestion. The mother of the sick child should be taught that these flies are very dangerous—that they carry infection—that they carry disease. Sugar and

sick child part of the time and yet the attitude prevailed that, "The public be ———." The public, however, must be protected.

DR. H. D. PEASE, of Manhattan (closing the discussion), said that his statement regarding sugar and water was merely an injected suggestion in order to emphasize the point that flies required liquids to drink. If sugar and water were used to attract the flies, the solution should contain formaldehyde or other poisonous chemical in order to kill them; then infection would not be carried and the sick child would be protected. He did not intend to express the belief that it would be proper to use a solution of sugar merely to divert the flies from annoying the patient.

DR. ALGERNON THOMAS BRISTOW, of Brooklyn, said that at his summer home last summer he did some work with flies. Flies must have water and he placed some poisoned water about and was much impressed with the satisfactory result.

He moved that a vote of thanks be tendered Drs. Pease and Overton for the excellent papers they had listened to.

Seconded and carried. (Rising

# TRANSACTIONS

## OF THE

### BROOKLYN SURGICAL SOCIETY.

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The meeting was called to order at 8.45 P. M. by President J. RICHARD KEVIN, M.D.

#### ULCER OF THE STOMACH.

DR. WILLIAM B. BRINSMADE presented a patient with the following history:

This patient, 54 years old, was brought into St. John's Hospital October 7th last. She was weak and much emaciated. She had been suffering from indigestion for ten years and now was living on whey, milk and soups and was getting her only relief from pain by vomiting.

Dr. Wood saw her two years ago and palpated a tumor in her abdomen and advised her to go into the hospital, but she thought she could get along with it, and later she saw Dr. Turpin, who sent her to the hospital.

At the hospital she was found to be in a very exhausted condition with a dilated stomach. One month before admission she had an attack of severe penetrating pain in the epigastric region which prostrated her. Pains began regularly one hour after eating and lasted two to three hours. She vomited whenever she took food; the vomitus was of coffee-ground appearance. She had lost twenty pounds in four weeks; her lips were bloodless and her abdomen was distended and there was a large mass above the umbilicus in the middle line. A diagnosis of carcinoma of the stomach was made, and the possibility of being able to have something done to relieve the pain made her accept the

offer of exploratory incision. A mass involving the pylorus and one and one-half inches of duodenum was distinctly felt when the abdomen was opened. On lifting up the attached omentum from the anterior wall of the stomach a hole the size of a lead pencil appeared from which the contents of the stomach escaped. The hole was closed and a gastroenterostomy was performed, which was difficult because of the thick and edematous stomach wall. A month before she entered the hospital she had had a rupture of the stomach and the omentum became adherent and plugged the hole. She made a recovery as such cases do and it was a gastric ulcer instead of carcinoma. There is nothing particular about the incision. She feels all right now and eats three meals of varied foods a day.

#### ULCER OF THE DUODENUM.

DR. BRINSMADE reported the following case:

Patient 40 years old. One of those cases with typical history of duodenal ulcer; pain regularly several hours after eating, with no relief until vomiting occurs. The diet had been experimented with until there was a gradual reduction of food to almost no food at all, with consequent loss of flesh and strength. He came into the hospital only when he could not walk to the dispensary to be treated. He was markedly emaciated with dry skin. Weight was 98 pounds before he was operated on. The usual pro-



cedure was carried out on him, that is, gastroenterostomy with a clamp. He improved rapidly after operation and went back to work. A large indurated mass the size of a lemon occupied the position of the pyloric duodenal junction, larger on the duodenal side. He was shovelling snow on the streets eight weeks after his operation. He now does anything he can get to do and weighs 145 pounds.

CASE II.—A man 52 years old. A guard on the elevated railroad, a German by birth. He has been treated in nearly all the cities of the country for this trouble, from New Orleans all the way to New York. He had vomiting of solid food for two hours after eating. This was the only relief he had from pain. He had a tumor occupying the duodenum near the pylorus as large as an English walnut. A gastroenterostomy was performed on him October 7th. He is back at work as a motorman on a trolley line, feeling perfectly well and having regained his maximum weight.

#### PERFORATING GASTRIC ULCER.

DR. BRINSMADE: Another case of ruptured ulcer of the stomach gave a history extending over fifteen years. He had suffered from the same train of symptoms already described. He had been treated by many doctors at many hospitals and by many different methods of treatment. On December 12th last he had violent tearing pains in upper abdomen. Eight hours later the abdomen was opened and large quantities of fluid were found. An ulcer was found on the anterior wall of the stomach two by three inches long, in center of which was a perforation through which stomach contents escaped with each respiration.

It was finally closed with a piece of omentum as a plug. He was crying for food the next day after operation, but when it was given to him, he was unable to take it. He died on the tenth day after operation. No autopsy was secured. He died from a ruptured gastric ulcer. This patient had been used as clinical material in one of our large medical schools.

#### A SERIES OF STOMACH CASES.

DR. BRINSMADE reported the following cases:

CASE I.—Referred by Dr. Roberts. On examination Dr. Brinsmade concluded she had a gastric ulcer. Case reported because of mistaken diagnosis. Nothing pathological was found except a chronically inflamed appendix. Pain and symptoms were not helped by the operation. The patient has been seen once since she left the hospital. She had the typical symptoms found in the other cases.

CASE II.—A patient 29 years old; at operation a tumor was found involving the duodenum and a gastroenterostomy was done and he has made an excellent recovery. The patient is now a well man. He was operated on November 15th. He is back at his work doing what he did before.

CASE III.—Patient 26 years old. Cook. He was operated on for gastric ulcer in Buffalo a year before Dr. Brinsmade saw him, which was in January, 1909. He left Buffalo and came to New York and worked as a cook; the symptoms returned nine months after the original operation. The symptoms became worse and he had a hemorrhage on the street and was brought to the hospital in the ambulance and bled 48 hours, then the bleeding stopped and he was anxious for another operation to be done.

The abdomen was opened and it was found that a gastroenterostomy had been performed, by what method it was not certain, apparently by the Murphy button, and the opening had narrowed down so it was impossible to get a lead pencil in. The little finger would not go through the pylorus or through the artificial opening. The mucous membrane of the stomach was searched without finding any erosion to explain the hemorrhage and then by incising the gastroenterostomy wound in one direction and sewing up in another, it was dilated with excellent recovery. When seen one month after he left the hospital, he was feeling well, although committing many indiscretions in eating and drinking.

CASE IV.—A case of pyloric obstruction shown before the Brooklyn Surgical Society five years ago. It was in a young colored woman. She got entirely well of her stomach symptoms. About a year after Dr. Brinsmade showed her for gastroenterostomy, some one else brought her in showing syphilis. She is incarcerated at present and her physical condition is not known. Dr. Brinsmade often wonders if the gastric condition was due to a gumma.

CASE V.—The patient neglected himself except for spasmodic visits to doctors and dispensaries until he could swallow nothing and no bougie could enter the stomach. Finally he reached a hospital ward. He had a very severe cardiac lesion and when it was attempted to give an anesthetic, the pulse went to two hundred and nothing could be done. However, with the relaxation under primary anesthesia, it was possible to pass bougies into the stomach and grad-

ually larger ones were passed until he could swallow something, but he was sixty years old and didn't improve under treatment. He lasted a month and died.

CASE VI.—Carcinoma of the stomach. Patient of Dr. West. One case showed a large tumor in the region of the stomach with chronic starvation supervening. The man was unable to walk. He was an Italian and willing to do anything to be relieved of pain. With a perfect understanding as to what was undertaken and that it was palliative, the abdomen was opened and a large pouch of stomach tissue was found and a gastroenterostomy was performed with satisfactory result. He commenced to eat after the operation and two weeks after the operation, he went home. Carcinomata developed in other parts and he died from metastases.

CASE VII.—The next case was almost the same. Aged 62. He had such a large tumor pressing on the liver that it caused necrosis and an abscess was found walled off by peritoneum which was practically an abscess of necrotic tissue in the liver, almost ready to break down. It was drained but he died three weeks after operation.

*Discussion by Dr. M. Figueira.*—These are cases of a great deal of interest. We all see them and have experience with them and have success and failures. The interest of these cases is not so much in the number that one can report or in the immediate result, as in the result one gets in the long run and in the precise diagnosis of the nature of the case one treats. It is a fact that these cases do well. The lesion whether



due to ulcer which has produced contraction, or due to tumor which has closed up the pylorus, or to an advancing growth from outside, the condition is the same. The stomach cannot empty itself and the symptoms of dilatation and obstruction are the symptoms we meet. When by gastroenterostomy, we get around the obstruction and give the contents of the stomach a chance to follow the natural course, the patients improve, but some of them in the long run will show symptoms due to contraction of the opening and that is a matter of interest and importance just now when it is not settled in surgeons' minds which is the best way to perform gastroenterostomy. Some will do the operation of Murphy and some the sewing operation of Mayo, and to find which gives the best results by statistics is of great importance. And along these lines surgeons doing these cases should give reports so one may judge as to the results.

Again the matter of the diagnosis of these cases is important because cases which have been considered as carcinoma and having been operated on as such, have disappeared when the irritation of the passage of food over them has been relieved by gastroenterostomy, showing that such tumors were of inflammatory nature, whereas others which we thought were gastric ulcers in the long run have developed carcinomatous growths. We know cases of carcinoma and gastric ulcer will differ in the analysis of the contents of the stomach. In a carcinomatous growth we have an absence of HCL acid and diminished motility of the stomach and lactic acid present, whereas in gastric ulcer we have increased acidity of the stomach in all cases and ab-

sence of lactic acid with marked motility, and so I think in all these cases the diagnosis of the case should be part of the history and this is more important even than the success which follows cases because success alone does not speak for the nature of the cases.

*Discussion by Dr. A. T. Bristow.*—

He stated that there is no operation in surgery, at least in the surgery of recent days, which is more beneficent than that of gastroenterostomy. At the same time a surgeon should be pretty definite in his ideas regarding the conditions which require gastroenterostomy. There are certain conditions for which if the operation is done, failure will always follow. It should never be done without deliberation and it is important that all the factors of the problem be considered.

There are perhaps three conditions which require gastroenterostomy, first, for the relief of gastric ulcer which has not yielded to treatment; second, for duodenal ulcer, and, third, for pyloric obstruction. A condition which may have existed in one of the cases in Dr. Brinsmade's list may belong to a fourth class of cases for which gastroenterostomy is done, always, however, without justification. If no ulcer is found, but there is a dilated stomach, the first question is, is this a dilated stomach with retained fluid products due to pyloric obstruction or motor insufficiency. If the dilatation is due to pyloric obstruction, operation will relieve and should be done, but if the dilatation is due to motor insufficiency without obstruction or spasm, we are in the presence of a neurosis and if an operation is done in this class of cases the patient in every instance will be worse off than before. Mulford, who has had



as much or more experience than any one else, speaks of a case in which he operated under such conditions and the patient was so miserable from regurgitation of bile for the reason that there was no pyloric obstruction, that he was obliged to reopen and close the gastroenterostomy and restore to the primary condition.

Regarding gastroenterostomy in duodenal ulcer, we have to take into consideration the condition of the patient. My impression is that if we attempt to do a gastroenterostomy in perforating duodenal ulcer with all the shock which pertains to this condition we will lose more patients than we will cure. I have seen a number of these cases and operated on them, but I have never done a primary gastroenterostomy, contenting myself with drainage and closure of the ulcer and none have returned. As a primary procedure reserving the gastroenterostomy for later use if needed.

Dr. Brinsmade has given an interesting and instructive series of cases and is to be congratulated on his operative technic and on his results.

*Discussion by Dr. Lewis S. Pilcher.*—Dr. Pilcher took occasion to give the later history of a case which he presented some three years ago at a meeting of the Associated Physicians of Long Island. He brought it up as bearing on the general subject of the later course of some of these cases and the difficulties of arriving at once at least at a satisfactory and final opinion as to the real nature of the condition present. This man had been operated upon for a gastric ulcer, it had been excised and he had made a happy recovery. He had returned to his normal strength and had been able for some time to follow a laborious vocation. Some two years later he re-

turned to him complaining of gastric symptoms again, pain, imperfect digestion, retention of food products in the stomach, pyloric stenosis. He again entered the hospital and the abdomen was opened. In the examination which was made of the portion of the stomach which was excised at the previous operation for the ulcer, the pathologist stated that there were evidences of an incipient carcinoma, but the immediate results, the increase in strength, weight, and the ability to return to his vocation had been such as to encourage the belief that if there was a carcinoma it had been fully removed at the time of the first operation. However, when the abdomen was opened the second time, it was found that there was a distinct carcinomatous process which had developed at the site of the original lesion, but that this had now extended so that it was certainly inoperable. No attempt was made to remove the carcinoma. A posterior gastroenterostomy was performed. The immediate reaction from the operation was satisfactory, but upon the fifth day he developed a violent pneumonia, which within forty-eight hours proved fatal so he died from his pneumonia due to the conditions attending the operation for the carcinoma which at this late date had developed where at first there was a gastric ulcer. In this most striking case which Dr. Brinsmade has presented this evening, this lady in whom he supposed he had a carcinoma, in whom he found a perforating gastric ulcer, on whom he did a gastroenterostomy with most delightful immediate results, it yet remains to be determined whether there may not be present even now a more serious condition which possibly may have had something to do with

the train of symptoms which led up to the operation which he has described. As to the technic of gastroenterostomy, it might be inferred from the remarks of one of the speakers that there was some doubt as to the best method of doing these operations. It has seemed, however, that of late the superiority of the posterior gastroenterostomy without the loop by means of the simple suture had been so thoroughly demonstrated that it has been generally accepted by surgeons as the method unless there are some controlling conditions which make it impossible to resort to it.

*Discussion by Dr. M. Figueira.*—Dr. Figueira stated that in reading certain surgeries, he finds that, although the authors show a preference for the posterior gastroenterostomy, they state that other operations have the preference in the minds of some surgeons. Murphy's operation, Roux operation, Mayo Robson's operation. Anterior operation.

*Discussion by Dr. William B. Brinsmade.*—All the cases of the series which were diagnosed clinically as carcinoma have since died so it is probable that that diagnosis was correct. Dr. Brinsmade has heard considerable discussion from time to time as to the narrowing of the outlet of the gastroenterostomy. Since the introduction of the Roosevelt clamp, no-loop and posterior gastroenterostomy, he has not happened to have heard of that narrowing. One of the cases of the series, Dr. Brinsmade operated on five years ago, another one four years ago and all at least six months ago. The ruptured gastric ulcer which died was done in January. Dr. Brinsmade agrees with Dr. Bristow that there is no use in doing a gastroenterostomy

in a stomach which is only lacking in motor power. In one of these cases of rupture ulcer a gastroenterostomy was done because there was a pyloric obstruction.

Dr. Mayo puts the thumb and first finger in the pylorus, the thumb in the duodenum and the finger in the pylorus and if he can make them meet, he thinks the pylorus is large enough but if the opening is smaller and they do not meet readily, he regards the pylorus as too small.

Dr. Brinsmade stated that he had the details and records of all the cases of the series with the analyses of the gastric contents but did not think he would impose on the members present by reading them.

Each case had had a train of symptoms which should have been a warning to his physicians. Only one case of the series got into Dr. Brinsmade's hands while the condition was fairly good.

We cannot always make a diagnosis in spite of all the laboratory methods which have been devised. Our own feeling is one of skepticism as to the absolute value of the laboratory findings. If the stomach washings return residual particles of food, there is something wrong at the outlet unless there is something wrong with the motor power which does not occur without a general enteroptosis. Malignancy is very often found on the posterior wall.

There is a refuge in surgery even for desperate cases and we must all hope the laboratory is some day going to enable us to diagnose such cases before they have gone through a long course of treatment. After a case has been cured by the accepted methods of medical and dietary treatment and there has been a return of his symp-

toms, only to go through the same cycle again, he should be advised that he can be permanently cured by operative measure. We are compelled also to accept the doctrine that carcinoma is frequently implanted on an old ulcer.

#### CRYPTORCHID.

DR. RUSSELL S. FOWLER presented a patient showing the result two and a half years after operation by Hahn's method.

Dr. Fowler stated that the case was referred to him by Dr. Leon Louria two and a half years ago for operation for left inguinal hernia and right cryptorchid. The testicle on the left side which had also been cryptorchid had come down into the scrotum. On the right side the testicle was at the level of the internal ring and could be moved down one-half inch in the canal. A double Bassini, combined with Hahn's operation on the right side, was performed. The result is perfect.

#### EPITHELIOMA OF THE HEEL.

DR. JAMES M. DOWNEY presented the following case history:

J. B. Male, age 71 years. Laborer. Seen by Dr. Downey with his family physician January 15, 1910. The patient had a small round ulcer on the back of heel over the attachment of the tendo-achilles about two years ago. On treatment with simple applications and relief of the pressure it readily healed. Last August the patient applied for treatment for the ulcer again, it having made its appearance in the same place. The same remedies were applied again but this time it did not yield to treatment. Frequent examinations of the urine showed about 2 per cent. of sugar and

enough of the usual symptoms to make a diagnosis of diabetes. His family history was negative.

*Present trouble.*—There is a round, broken-down, ill-smelling, discharging ulcer about the size of a silver dollar, situated on back of heel over the attachment of the tendo-achilles and extending down to the bone. The tissues about it are infiltrated, the inflammation extending to the ankle and across the dorsum of foot. Temperature 99.2 degrees F., the arteries hard, the pulse 90, full and strong. When probed, the os calcis was found to be bare in places and bled easily. Specimens taken for microscopical examination show squamous celled variety of epithelioma.

#### SARCOMA OF THE SCAPULA.

DR. DOWNEY read the following case history:

J. M. Male, age 22 years. United States. Occupation, student. General appearance, athletic and well developed.

*Family History.*—Mother died of cancer of the breast two years ago. Otherwise nothing of interest. Present trouble, patient complained of painful swelling over the left scapula and pain radiating down the arm. He stated that about a year before he had been struck with a tennis racket on that shoulder which inconvenienced him for about a week. Six months after the accident he noticed this swelling which was about the size of a walnut and painless.

*Physical Examination.*—Shows a small, hard, smooth mass, about the size of a hen's egg, situated transversely above the spine of the scapula. No glandular enlargement. Operation was recommended which was put off for six weeks. In the middle of



June he was again examined. There had been no change except that the tumor was less painful.

*Operation.*—June 18th. An incision was made about two inches long over the tumor, down to the mass, which was enclosed in a thin, fibrous capsule, and was adherent to the bone where it apparently originated. The capsule was incised and the tumor examined. It was found to contain brainlike tissue characteristic of sarcoma. Sections were taken and mass curetted down to bone which was found bare of periosteum and infiltrated. This was scraped and some small spiculæ removed. The wound was closed with drainage. Healing was slow, requiring six weeks to granulate. Microscopical examination shows a mixed celled osteo-sarcoma, the giant cells predominating.

The wound remained closed for three weeks at the end of which time the old scar became red, swollen and

inflamed, finally breaking down and discharging a sero-purulent fluid. On September 1st it had resumed its former size. Patient refused radical operation.

November 12th, Dr. Coley saw patient in consultation and recommended his toxins. The patient was placed under his care in the hospital for seven weeks. During the treatment the tumor continued to grow rapidly, attaining the size of a cocoanut, was hard, nodular, and involved the whole scapula. The cervical glands became enlarged about this time.

*Present History.*—Tumor has continued to grow until now it is as large as a medium-sized pumpkin, nodular and broken down in a few places, discharging a sero-purulent fluid; on one occasion there was moderately severe hemorrhage. Patient is very much emaciated and suffering from physical exhaustion.

## BOOK REVIEWS.

**Lippincott's New Medical Dictionary.** A Vocabulary of the Terms Used in Medicine and the Allied Sciences with Their Pronunciation, Etymology, and Signification, including much Collateral Information of a Descriptive and Encyclopædic Character. By HENRY W. CATTELL, A.M. (Laf.), M.D. (U. of P.) Editor of International Clinics, Fellow of the College of Physicians of Philadelphia, etc. Octavo. 1108 pages. Freely illustrated with figures in the text. Flexible leather, thumb indexed, \$5.00 net.

This work is as the title implies an entirely new dictionary, and the best review of the book is expressed in a circular letter from the publishers setting forth the merits of the work.

The spelling of pharmaceutical terms is that of the United States Pharmacopœia. Morphine is spelt *morphine* and not morphin or morphia.

The words are defined where they are most likely first to be

looked for, namely, under the attribute word: Example, Fehling's solution is defined under *Fehling* and not under *solution*, though under the latter word is given a list of the more important solutions defined in the dictionary including the one under consideration.

There is much matter of an encyclopædic nature in Lippincott's Dictionary, and especial attention has been given to a system of cross-references whereby collateral information of a most diverse character may be easily looked for and found. Thus Bier's local anæsthesia has its matter of an encyclopædic nature given under local anæsthesia with a cross reference there to Schleich's infiltration anæsthesia, and another one under anæsthesia to local anæsthesia where there are named thirty other varieties of anæsthesia defined elsewhere in the dictionary. Test any State Board questions with the matter contained in this dictionary and it will be found up-to-date and accurate.

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